

An Inquiry into the Barriers to Participation Within the  
Fitness Industry for People Living with Mobility Challenges

Kirk Wilson, HPPhEd, BEd

Department of Graduate and Undergraduate  
Studies in Education

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Faculty of Education, Brock University  
St. Catharines, Ontario

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## **Abstract**

This qualitative study was designed to inquire about the barriers to participation within the fitness industry for people living with mobility challenges. An examination of the insights, stories, and experiences with barriers through interviews given by 4 people living with mobility challenges (PMC) formed the core of the research. An analysis of the interviews from the 4 PMC informants was performed at two levels. First, a content analysis served to identify general and specific categories related to barrier issues within various fitness environments. Secondly, in-depth thematic analyses of the entries related to the insights and stories from the 4 informants which emerged from the content analysis of the data gave rise to five thematic statements. From the thematic statements a fitness industry awareness protocol was created in the form of a statement response questionnaire. The protocol, which was given to 4 fitness assessors/trainers, was used to provide a snapshot of the fitness industry's readiness to work with disability. Throughout the process, the four PMC informants formed a collaboratively involved group of coresearchers, adding their voices to the narrative of the fitness-barrier experience.

The result of the study suggests that barriers to participation within the fitness industry for PMC exist in various forms and levels of severity. The results also suggest that the fitness industry needs to better prepare their people and environment for working with people with physical disabilities, such as PMC, and provide a more open and positive environment for participation. Within the context of any fitness-related environment, recognizing that barriers to participation do exist, and acknowledging and accepting people with disabilities for who they are as individuals, will serve to develop a

relationship where fitness practitioners and people with disabilities can work towards creating an inviting, inclusive, accessible, and barrier-free fitness environment for all.

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# **CHAPTER ONE: THE PROBLEM**

## **Introduction**

The benefits of daily physical fitness are profound. One participates in physical fitness for several different reasons, whether it be for the social aspects, the well documented physiological, psychological, or other health-related rewards and achievements. Research has shown that regardless of gender, race, age, or ability, everyone can benefit from physical fitness. For people interested in becoming physically fit and maintaining a healthy lifestyle, time, dedication, and a conducive environment like a community-based fitness facility are necessary for attaining these goals.

As a fitness consumer, deciding which fitness club can best suit your wants and needs is important. Questions may arise about the programs offered, competence of the hired fitness staff, equipment, and the safety, affordability, and accessibility of a particular fitness facility. What a fitness club can offer becomes the big issue. Before committing to a particular fitness club, these aforementioned questions should be addressed. For able-bodied individuals, decisions about these questions seem easy and almost insignificant. Unfortunately, for special needs populations the answers remain unclear and often manifest themselves as barriers to participation. Special populations are faced with barriers to participation on an ongoing basis within fitness clubs across North America. This qualitative study aims to identify, analyze, and understand the problematic issues which compromise or prevent the participation of people with disabilities or special needs in fitness-related environments; further it aims to educate preservice and inservice practitioners in the fitness industry about barriers to inclusion of

persons with disabilities and ways to address those barriers.

### **Purpose of the Study**

The purpose of this study was to examine the barriers to participation within the fitness industry that exist for people living with mobility challenges. PMC were used throughout this study to refer to a person or people living with a mobility challenge(s). A number of obstacles are identified as potential barriers to participation for PMC. Physical barriers, resource-related barriers (equipment, programs, transportation, financial, social support), and attitudinal barriers are the most prevalent problematic issues facing PMC. Through the identification of these barriers to participation within fitness environments, several recommendations/suggestions are made in the direction of making fitness facilities as barrier free as possible and for practitioners to be educated about modifications for inclusion. Only when the existence of barriers to participation is acknowledged, and the relationship between the fitness industry and special populations is improved, will PMC have an equitable opportunity to benefit from daily physical fitness.

For the purposes of this study, qualitative analyses of insider stories from persons with mobility impairments, as well as the development of a fitness protocol as a preservice and inservice tool for needs assessment of practitioner's readiness to work with disability, will both serve to provide a snapshot of the fitness industry from the consumers and the fitness trainers.

### **Rationale and Importance of the Study**

Legislation such as the Rehabilitation Act, Americans with Disabilities Act (ADA), the Developmental Disabilities Act, and the Individuals with Disabilities Act provide support for people with disabilities on the conflicting issues and barriers that face them in public places like fitness clubs (Sherrill, 1993). As mentioned above, much of the government documentation which addresses physical disabilities and fitness are U.S.-based. These government documents attempt to provide a legislative basis through which PMC can exercise their civil rights. Civil rights legislation can influence the design of fitness facilities and the programs and equipment provided within those settings for PMC. Under the ADA, fitness providers are required by law to offer "reasonable accommodation" to any participant regardless of their abilities (Public Law 101-336, 1990). Canada is far behind what has already been established in the United States. To date, there is no Ontarians with Disabilities Act to compare with the ADA. However, provisions made under the Human Rights Legislation of Canada make it possible for PMC to petition for equitable access into places such as fitness facilities. Also, Section 15(1) of the Canadian Charter of Rights and Freedoms Department of the Secretary of State of Canada (1987) states,

every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability (p.13).

This is another piece of Canadian government documentation providing support for PMC

in Canada. Establishing a political power base though, should be only the beginning (Vash, 1995). The fitness industry needs to go beyond basic minimum standards by ensuring all aspects of accessibility for PMC are given their due process. Whether physical, resource related, or attitudinal, the barriers confronted by PMC are issues within the fitness industry that need immediate attention.

Evidence suggests that the physical fitness industry has set up for failure special populations like PMC by ignoring the basic rights of providing equal access and opportunity to participate within community-based fitness facilities. The literature may help explain where and why barriers exist around making PMC active members of fitness clubs. One factor contributing to the development of these barriers may have developed through the misrepresentation and misconception of the definition of physical fitness. The American College of Sports Medicine (1991) stated that the operational definition of physical fitness has been typically defined as including cardiorespiratory endurance, muscular strength and endurance, body composition, and flexibility. Does this definition pertain to everyone in every way? According to Sherrill (1993), for this definition to be fully operational and represent all people, the development of beliefs, attitudes, and intentions that lead to fitness is a necessary fifth component in defining physical fitness. The measurement and evaluation of this fifth component should be as much a priority in fitness clubs as the other four for establishing equal opportunity for special populations in the physical fitness industry. To date, there has been much talk about marginalized groups like those with mobility impairments, and fitness, but there have been few recommendations about how this talk translates into conduct in a practical setting,

namely strategies to get beyond physical, resource-related, and attitudinal barriers.

Clearly, there is a need to plan, design, and implement appropriate flexible methods for developing barrier-free fitness facilities for PMC. This will require inservice training and education of fitness consultants and assistants, fitness administrators, volunteers, physical educators, and those others employed and involved in the fitness industry, including PMC, about the present barriers to participation and what they can do to dismantle them and create an inclusive environment. It is possible that fitness practitioners, in collaboration with PMC within community-based fitness clubs, can implement inclusion strategies and compel the entire fitness industry to rethink ideas and challenge their assumptions about fairness and equity for marginalized groups like PMC.

### **Definition of Terms**

**Ambulation:** the ability to perform locomotor functions under your own power, or with the assistance of walking aids.

**Body composition:** the makeup of the body in terms of muscle, bone, fat, and other elements.

**Canadian Personal Trainers Network (CPTN):** mission statement: To develop a comprehensive Canadian national personal trainer certification which sets standards of excellence to ensure safe and effective training sessions and to reflect the needs and changes within the fitness and lifestyle industry.

**Cardiorespiratory endurance:** the ability of the heart, lungs, and blood vessels



to process and transport oxygen required by muscle cells so that they can contract over a period of time.

**Certified personal trainer:** a qualified professional who acts in the capacity of educator, coach, facilitator, and mentor on a regular basis and in a one-on-one setting to empower individuals to reach their fitness, health, and lifestyle goals.

**Contracture:** adaptive shortening of soft tissues crossing a joint that may not be reversible.

**Etiology:** the study of the causes of a disease or abnormal condition.

**Fitness Industry:** refers to the interconnected working body of people and places that encompasses fitness organizations within a community. The people within this system include local and provincial government personnel, and fitness administrators, managers, instructors, staff, volunteers, and clientele. In terms of place, particular reference is given to actual fitness clubs, but does not exclude other recreational or community-based locations such as school and university gymnasiums and weight-rooms, tennis courts, ice-hockey arenas, ski clubs, swimming pools, etc.

**Flexibility:** the ability of joints to function through intended range of motion gracefully and efficiently.

**Holistic health:** encompassing view of the composition of health; views health in terms of physical, emotional, social, intellectual, and spiritual makeup.

**Lordosis:** abnormal curvature of the spine forward.

**Muscular endurance:** the ability of a muscle or a muscle group to function over time; supported by the respiratory and circulatory systems.

**Muscular strength:** the ability to contract skeletal muscles to engage in work; the force that a muscle can exert.

**Nonambulation:** using a wheelchair for mobility purposes.

**Nonprogressive disorders:** a condition that remains the same, never becoming worse.

**Pathology:** the study of the essential nature of diseases and especially of the structural and functional changes produced by them.

**Physical fitness:** the ability to meet life's demands and still have enough energy to respond to unplanned events.

**Progressive disorders:** a loss of function with time due to impairment or degeneration of the nervous system, skeletal muscles, bones, joints, or connective tissue in the body.

**Self-esteem:** the amount of regard you hold for yourself; the amount of value you place on yourself.

**Strabismus:** inability of both eyes to be directed at the same object at the same time; usually caused by weakness or defect in one of six muscles controlling eye movement.

**Wellness:** a unique individualized sense of a happy, healthy self, in terms of having the components of health balanced at levels which meet one's daily wants and needs.

### **Scope and Delimitations of the Study**

In all fairness to the topic of inquiring about the barriers to participation within the fitness industry for people living with mobility challenges, one would (along with interviewing) ideally trace and observe the experiences of PMC within fitness-related environments over an extended period of time. One would also maintain close contact with those who have a significant influence and impact on this process, namely those employed by or associated with the fitness industry. However, time allocations and the potentially extensive amount of data make such a study overwhelming and less focused on the intended purpose. This project itself is bound to the natural restrictions of availability of time, space and individuals. The descriptive approach to inquiry used in this setting only begins to scratch the surface of the topic under investigation. The research described in this study is intended to bring attention and awareness to the barrier issues present within the fitness industry for people living with mobility challenges.

### **Outline of Subsequent Chapters**

Chapter Two provides a review of the relevant literature for this study. The literature review follows an approach which moves from the general to the specific and focuses on physical disabilities and fitness which leads into discussion about the benefits and barriers to fitness PMC experience within the context of the fitness industry.

Chapter Three describes the methodology used for the purpose of this study. The research approach is discussed and the methodological assumptions are presented, followed by the description of the research design. The selection, background, and justification of the participants are presented, as are the data collection, recording,

organization, and analysis.

Chapter Four presents the results or findings of the study. The qualitative data are presented by means of tables and narrative text. In reporting and interpreting the findings throughout the chapter, much discretion was taken to represent the meanings of the transcribed voices of the informants.

Chapter Five provides a summary of the study and the interpretations drawn from the analyzed data. In addition, suggestions and recommendations for the practical application and implementation of the findings are included, as are implications for further research.

The Appendixes are intended to provide concrete support for, and clarify the origin and outcomes of, the data collected and analyzed in the study. Samples of original entries taken from the transcribed interviews of each informant are provided, along with the interview research questions created and used by the researcher to collect the data, and the Fitness Industry Awareness Protocol which was developed from the analyzed data.

## **CHAPTER TWO: REVIEW OF RELATED LITERATURE**

### **Organization of the Present Chapter**

In discussing the barriers to participation that exist within the fitness industry for people living with mobility challenges, an examination of the educational literature related to this topic is necessary. The purpose of this chapter is to provide a logical overview of such research and to provide a solid reference from which to ground this study.

Considering PMC participation within the fitness industry as the context and moving from the general to the specific, topics under discussion are arranged under headings such as, benefits of physical fitness and regular exercise; identifying and understanding mobility-impairing conditions; cerebral palsy: considerations and concerns; spinal cord injury: considerations and concerns; spina bifida: considerations and concerns; muscular dystrophy: considerations and concerns; multiple sclerosis: considerations and concerns; limb deficiencies and acquired amputations: considerations and concerns; arthritis and other joint/bone conditions: considerations and concerns; barrier and barrier-free fitness environments; physical/structural barriers; resource-related barriers; and attitudinal barriers. The chapter concludes with a summary of the literature review.

### **Benefits of Physical Fitness and Regular Exercise**

To be "physically fit" includes and means different things to different people; thus, physical fitness has been defined in a variety of ways and in different contexts.

According to Sherrill (1993), since the 1980s physical fitness has taken on a holistic approach, being directly associated with a healthy lifestyle that decreases the risk of disease and increases wellness. One commonality to defining physical fitness is that it is a multidimensional construct which encompasses specific abilities or components. The basic components of physical fitness consist of cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, and body composition (Greenburg, Dintman, & Oakes, 1995; Payne & Hahn, 1992; Shephard, 1990; American College of Sports Medicine, 1991; Winnick & Short, 1985). These five components have governed most fitness programs and fitness testing to date. In today's physical fitness models and theories, the development of beliefs, attitudes, and intentions, which include evaluating self-esteem, self-motivation and other psychological factors, have gained popularity and attention (Dishman, 1988; Sherrill, 1993). These additional components have served to add to the definition and to describe the holistic nature of physical fitness in more realistic and equitable ways.

The importance and benefits of physical fitness/exercise go beyond the positive improvements in lifestyle that an individual can experience through the development of the aforementioned physical fitness components. Several other related physical fitness benefits can occur through participation in proper, appropriate, and progressive forms of physical training/exercise such as rehabilitation, sports, adapted sports and sports-related activities, recreational and community activities, aerobics, dance, gymnastics, weight-training, and activities of daily living such as walking, jogging, running, climbing, swinging, job and household-related responsibilities (Shephard, 1990).

According to Shephard (1990) the mechanical efficiency of body parts can also improve as muscles strengthen and through the learning of new skills associated with particular tasks. Also, motor skills such as agility, balance, coordination, power, speed, and reaction time may improve with regular physical activity (Greenburg et al., 1995).

Physical activity can also enhance one's physical health. Exercise can prevent, reduce the risks, and serve as treatment for diseases and medical complications associated with inactivity and sedentary living such as heart disease, heart attacks, high blood pressure, cancer, being overweight, obesity, high cholesterol, and malnutrition (Greenburg et al., 1995; Miller, 1995; Shephard, 1990).

In addition, regular exercise can be an instrumental means of managing stress, rehabilitation and recuperation from injury and/or illness, and prolonging and or increasing the longevity of life (Greenburg et al., 1995). First, exercise induces a sense of stress relief in the body and makes one feel better and more relaxed. Secondly, the therapeutic benefits of exercise are also well documented. No longer are people recuperating from various conditions and medical procedures (i.e., women having given birth, bypass surgery, spinal cord injuries) restricted to their hospital beds for days. Evidence has shown that recovering patients placed on rehabilitation programs requiring physical movement are quicker in returning to their regular daily routines. Lastly, physical activity can help increase the longevity of life. As people grow older they become more susceptible to conditions that restrict their activities of daily living and thus they become more dependent on others. A regular routine which includes physical activity can prolong independent living by maintaining the basic components of physical

fitness.

Exercise can also enhance spiritual health by connecting with the natural environment and bodily sensations, and social health by engaging in activity with other people. Furthermore, physical activity or sport activities can provide challenges that develop confidence in both success and failure, that translate into positive learning and growth experiences (Greenburg, et al., 1995).

Although the components of physical fitness are somewhat specific, they are not mutually exclusive in regard to their characteristics or implications for development (Winnick & Short, 1985). Each component of physical fitness can have a direct or indirect influence on another component. A certain area of physical fitness for a person or group of persons may be of greater importance for attaining and maintaining an active, healthy lifestyle (e.g., importance for wheelchair users to develop good upper body strength for the purpose of ambulation and activities of daily living) than for someone else. Accounting for individual differences is all important. Every individual has his or her own unique wants and needs. Therefore, in order for an individual to reach his or her full fitness potential, age, sex, special needs and conditions, activity experiences, growth, development, maturity, and general abilities are important elements to consider and address in designing and implementing fitness programs.

Take into consideration physical fitness and people with disabilities. According to Figoni (1995), the benefits of exercise extend further for people with disabilities. Exercise allows people with disabilities to maintain their independence, functional capacity, and mobility. Inadequate physical fitness coupled with physical disability may



lead to immobility, a decreased exercise tolerance or inability to exercise, and make one susceptible to common medical problems, secondary disabilities, and prone to the dangers of a sedentary lifestyle (Lasko-McCarthy & Aufsesser, 1990). Therefore, exercise plays a critical role in preventing the cycle of disability, inactivity, and functional decline.

Overall, there are a number of general benefits of exercise training that have been recognized for people with disabilities; they are as follows: improved functional capacity and increased functional independence; increased muscular strength and endurance, thereby expending less energy to perform exercise and activities of daily living, like wheelchair propulsion and transfers; increased flexibility and range of motion; temporary reduction in spasticity; improved cardiovascular function and reduction in cardiovascular risk factors; preventing obesity and glucose intolerance; improved basic skills allowing development and improvement in prevocational and vocational skills and productivity; improved physical recreational skills which may provide opportunities for socialization or competition; improved performance in adapted sports; prevention of sport-related injuries; self-satisfying participation in community, social, recreational, and family activities; reduced psychological depression and mental stress; improved sleep; and improved self-image and feeling of control (Crocker & Bouffard, 1992; DiRocco, 1995; Figoni, 1995; Lasko-McCarthy, & Aufsesser, 1990; Levinson & Reid, 1991; Pitetti, Fernandez, & Lanciault, 1991).

## **Identifying and Understanding Mobility-Impairing Conditions**

A person living with a mobility impairment is someone with a physical disability that requires the use of a wheelchair, or crutches, canes, walkers, splints and/or braces, or other assistive devices to perform physical exercise or activities of daily living (ACTION, 1992). Within the fitness industry, fitness practitioners may work with a number of PMC. Hamel (1992) states that, "according to unofficial US Census Bureau estimates in 1990, about 8% of Americans ages 16 to 64 - or 12.6 million people - have a 'mobility limitation'" (p.122). In addition to these figures, new cases of PMC present themselves every day. Thus, to offer safe, equitable, effective, and accessible physical fitness programs and opportunities for PMC, fitness practitioners must develop a basic understanding of the characteristics and the physical and/or physiological limitations that PMC bring to the fitness environment (Miller, 1995).

Though there are many conditions that can affect someone's mobility, there are more specific types of disability associated with mobility impairment; they are, cerebral palsy (CP), stroke, and traumatic brain injury (TBI), spinal cord injuries (SCI), spina bifida, muscular dystrophy (MD), multiple sclerosis (MS), limb deficiencies/acquired amputations, and arthritis and other joint/bone conditions. Although each of these conditions may differ in terms of its pathology, and etiology, they share certain characteristics that identify them as being strongly associated with mobility impairments. These conditions, whether they be congenital, acquired through head trauma, viral infections, or genetic defects, or whether they are nonprogressive (CP, SCI, spina bifida, stroke, TBI, amputations), or progressive (MD, MS, arthritis and other joint/bone

disorders) disorders, each will cause or lead to some degree of mobility impairment. The next section defines and discusses each condition separately and highlights the characteristics, classifications (where applicable), considerations, and concerns common to each condition, in order to assist fitness educators and practitioners who are likely to observe, meet and work with PMC in a fitness-related environment.

### **Cerebral Palsy and Associated Dysfunctions: Considerations and Concerns**

Cerebral palsy (meaning brain paralysis) is a chronic, nonhereditary, noncontagious, nonprogressive neurological disorder of movement and posture, caused by a defect or lesion in the upper motor neurons within the immature brain which regulate neuromuscular function, and accompanied by associated dysfunctions (DiRocco, 1995; Sherrill, 1993). Cerebral palsy can occur before, during, or following birth, and varies from mild to severe (1, 2, 3, or 4 limbs can be involved). There are three main types of CP: spasticity, ataxia, and athetosis. Spasticity, the most prevalent type of CP is characterized by hypertonic muscle tone (abnormal muscle tightness and stiffness) during voluntary movement. Spasticity may cause muscles to continually contract, thereby causing associated dysfunctions such as reduced range of motion, reflex disorders, excessive and early muscle fatigue, and abnormal postures like a scissors gait (both legs involved) and/or a hemiplegic gait (arm and leg on the same side involved; DiRocco, 1995; Sherrill, 1993)

Ataxia is characterized by hypotonia, or low muscle and postural tone in which there is a combined disturbance of balance and coordination (Sherrill, 1993). Poor body

balance and movement incoordination can cause staggering and unsteadiness of gait.

Athetosis is characterized by constant, unpredictable, and non purposeful movement caused by fluctuating muscle tone that is sometimes hypertonic and sometimes hypotonic (Sherrill, 1993). Symptoms for athetosis include: clumsy, random, involuntary jerky movements; impaired hand and head control, balance, trunk stability, facial expression, and speaking (DiRocco, 1995; Sherrill, 1993).

The most comprehensive way of profiling people with CP has been through sport classification which takes into account whether the condition is mild, moderate, or severe. There are eight classes, four for nonambulatory and four for ambulatory; they are as follows: class 1--motorized chair; class 2--athetosis - 2L (legs) or 2U (arms); class 3--moderate triplegic (three limbs, usually both legs and one arm) or quadriplegic (all four limbs and trunk involved); class 4--diplegic (all four limbs, the legs more severely than the arms); class 5--assistive devices; class 6--athetosis ambulatory; class 7--hemiplegic (entire right side or left side is involved); and class 8--minimal involvement (Sherrill, 1993).

Two other mobility-impairing conditions closely related to CP, in that both can be associated dysfunctions of CP, are stroke, also referred to as a cerebrovascular accident (CVA), and traumatic brain injury (TBI). It is important for fitness practitioners working with people that have had a stroke or TBI to recognize the similarities these conditions have with CP, so that the proper and appropriate modifications can be made to exercise programs for these people. Cerebral palsy, CVA, and TBI are conditions that present similar profiles, each resulting in varying degrees of sensory, perceptual, and

cognitive impairment, along with certain motor limitations; each is an upper motor neuron condition (Sherrill, 1993).

A stroke results from oxygen deprivation to the brain or hemorrhage of blood vessels leading to the brain. Strokes are classified as complete (total paralysis) or incomplete (partial paralysis), depending on the severity of neurological damage. Characteristics associated with CVA include some degree of muscle weakness or paralysis and motor skill loss, often affecting either the right or left side of the body (hemiparesis/hemiplegia). Impaired balance and coordination, speech, memory, and vision are also common characteristics of a stroke. This acquired condition may require the use of a wheelchair or cane/walker to assist with locomotion (DiRocco, 1995; Sherrill, 1993).

Traumatic brain injury refers to permanent damage caused by concussion, contusion, protrusion, or hemorrhage as a result of vehicular accidents, assaults, falls, and other types of traumas (Sherrill, 1993). The general symptoms resulting from brain damage depend on the site and extent of the damage. Along with the cognitive and behavioral impairments that can occur with TBI, physical impairments, such as motor weaknesses, incoordination, impaired balance, and spasticity can all have profound effects on a person's mobility capabilities (DiRocco, 1995; Sherrill, 1993).

### **Spinal Cord Injury: Considerations and Concerns**

A spinal cord injury (SCI) is caused by a lesion or disease to the spinal cord and/or spinal nerves (DiRocco, 1995; Sherrill, 1993). As a result of injury to the spine,

spinal paralysis of varying magnitudes occur. In some cases (paraplegia) SCI results in loss of leg use; therefore the hands essentially become the feet. Spinal paralysis affects and severely impairs the normal functioning of both the central (CNS) and autonomic nervous systems (ANS). The CNS controls movement and sensation, while the ANS controls exercise parameters such as heart rate, blood pressure, regulation of body temperature, and circulatory function (diversion of blood to muscles), and also controls the bladder, bowels, and sexual activity. Other concerns associated with loss of sensation in most SCIs include skin breakdown causing pressure sores on weight-bearing areas of the body, unpredictable spasms and joint contracture, atrophy of limbs, weight management, osteoporosis, and injury prevention during particular kinds of body positions. The specific symptoms and severity of spinal paralysis depend upon the level or site of the lesion and whether it is complete or incomplete. The site of the lesion will influence torso control once out of the wheelchair. The higher the lesion, the greater is the functional impairment.

Spinal cord injuries can be classified in various ways. A general way of classifying SCI is according to the level of the lesion on the spinal cord. For example, a lesion at the third thoracic vertebra is referred to as T3 (DiRocco, 1995). Sherrill (1993) outlines four classifications of SCI based on walking potential for complete lesions of the spinal cord: T2 and above--nonambulators; T3 to T11--walking used only as therapy; T12 to L1 (lumbar vertebrae)--household ambulators; L2 and below--community ambulators.

Some additional concerns for wheelchair users or people that use other assistive

devices are that they will require more space for travelling, turning, and transitions, and possibly take more time to do various locomotor functions. Also, directional and pathway transitions will always be person specific.

### **Spina Bifida: Considerations and Concerns**

Spina bifida is a congenital orthopaedic impairment resulting in a defect of the spinal column caused by failure of one or more of the vertebral arches to properly develop and enclose the spinal cord before birth (Sherrill, 1993). The defect takes the form of a sac caused by the protrusion of the spinal cord and cerebrospinal fluid through the opening. Individuals with spina bifida have symptoms similar to those with SCIs. Depending on the site and extent of the condition, there can be weakness, paralysis, and loss of sensation in the affected muscles. Though the hands and arms are functional, bone deformities, contracture, and postural disorders in the trunk and lower limbs are often associated with spina bifida. Most people with spina bifida who participate in physical activity move with assistive orthotics like leg braces and crutches to facilitate upright positioning. Others with more severe conditions require the use of wheelchairs (DiRocco, 1995; Sherrill, 1993).

From most to least severe, the three classifications of spina bifida are myelomeningocele (MM), meningocele, and occulta. MM causes permanent neurological damage. With this condition, a sac containing nerve roots and meninges (membrane or covering of the spinal cord) protrudes from the undeveloped spinal cord. Because surgery is required to close the open and exposed skin tissue around the protrusion, many people

with MM have hydrocephalus (increased cerebrospinal fluid in the ventricles of the brain) or "water on the brain" as a complication of surgery. Hydrocephalus is surgically corrected by placement of a shunt in the head to decrease the intracranial pressure and drain excess fluid from the brain to the venous system (DiRocco, 1995; Sherrill, 1993).

In meningocele, a sac containing skin, meninges, and spinal fluid protrudes from the spinal cord, but the cord and nerves are not displaced. The occulta type of spina bifida is concealed under the skin and does not cause neurological damage.

### **Muscular Dystrophy: Considerations and Concerns**

Muscular dystrophy refers to a group of genetically determined, chronic conditions in which the progressive degeneration and weakness of various muscle groups and organs within the body are attributed to pathological, biochemical, and electrical changes that occur in the muscle fibers (DiRocco, 1995; Sherrill, 1993). In MD, a problem in muscle metabolism results in muscles becoming weaker, ultimately resulting in muscle cell and tissue degeneration and death.

Of the several different types of MD that have been identified, the three most common are facio-scapular-humeral, limb-girdle, and Duchenne (most common and severe). Common to all forms of MD is some degree of movement restriction. Generally, there is a progressive weakness and degeneration of the shoulder, arm, hip, thigh, and calf muscles, and fat and connective tissue gradually replace degenerating muscle fibers. All these things can affect balance, ambulation, muscular strength and endurance, and dexterity. Also associated with MD are postural disorders appearing in



the trunk and feet, causing individuals to move with awkward side-to-side gait and lordosis. Most people with MD have difficulty walking, running, cycling, climbing stairs, rising from a seated position, and tend to fall frequently. As the condition worsens, many people with MD become wheelchair users (DiRocco, 1995; Sherrill, 1993).

### **Multiple Sclerosis: Considerations and Concerns**

Multiple sclerosis is a progressive neurological disease caused by the disintegration of the myelin sheath (protective layer) that covers nerve fibers/tissue throughout the body (DiRocco, 1995; Sherrill, 1993). The disease is characterized by periods of acute illness, followed by periods of remission. The rate of progression of MS is extremely individualized. Generally, people with MS exhibit common symptoms. There is a loss of muscle function, which can cause ataxia, spasticity, and intention tremors. Accompanying these symptoms can be numbness, general weakness and fatigue, complete or incomplete paralysis, staggering, slurring of speech, and optic distortions. As MS progresses ambulation becomes increasingly difficult; therefore, the use of wheelchairs is not uncommon.

### **Limb Deficiencies and Acquired Amputations: Considerations and Concerns**

Limb deficiencies are different from acquired amputations in that they are congenital amputations. There are two types of limb deficiencies: dysmelia (absence of the arms or legs, and phocomelia (absence of middle segments of limbs; hands or feet are attached directly to the shoulders or hips; Sherrill, 1993).

The etiology for acquired amputations is more dramatic in nature. The leading causes of acquired amputations range from trauma (farm and power tool accidents, vehicular accidents, gunshot explosions) to cancer, infection, and vascular conditions like gangrene. In terms of the degree of severity, the number of limbs missing and the level or location of the amputation on the body determine one's motor performance capabilities and sport classification, of which there are nine. Many people with amputations are fitted with prosthetic limbs of some kind. In most cases, prostheses are fitted within 30 days after the initial incident. For people with amputations, balance is the one aspect of general mobility and motor performance that poses the most difficulty. Usually the sound limb is used in performing manipulative skills like kicking a soccer ball, while the prosthetic limb maintains the weight of the body. Although adaptations for certain physical activities may be needed, most people with properly fitted prostheses, and in some cases with the help of other assistive devices such as canes and walkers, can participate fully in most, if not all, kinds of physical activities (Sherrill, 1993).

### **Arthritis and Other Joint/Bone Conditions: Considerations and Concerns**

Arthritis (joint inflammation) refers to various conditions that are characterized by and/or create pain and swelling within affected joints, cause heat and redness due to inflammation, decreased range of motion (ROM), and related muscle weakness. Of the over 100 identified arthritic conditions, the majority of cases fall under rheumatoid arthritis or osteoarthritis (degenerative joint disease). Rheumatoid arthritis (most severe) is progressive and usually affects more than one joint. Inflammation and dramatic

reduction in ROM are predominant in the joints of the arms, hands, hips, legs, and feet, and can be attributed to the breakdown of cartilage surrounding the bones and subsequent buildup of scar tissue around the joints (DiRocco, 1995; Sherrill, 1993).

Osteoarthritis (most common) mainly affects people over the age of 50 and is the major cause of immobility in the elderly. Osteoarthritis results basically from joint abuse and overuse, which causes joints to become damaged and deteriorate with time. Mainly affected are the weight-bearing joints of the knees, hips, and spine. The major symptoms of osteoarthritis are pain, muscle fatigue, and joint stiffness, with inflammation rarely occurring (DiRocco, 1995; Sherrill, 1993).

Arthrogryposis is another potentially severe joint condition which can confine a person to a wheelchair at a very early age. Arthrogryposis is referred to as a nonprogressive congenital contracture syndrome characterized by internal rotation at the shoulder joints, elbow extension, pronated forearms, radial flexion of wrists, flexion and outward rotation at the hip joint, and abnormal alignment of knees and feet. An overabundance of fatty and connective tissue at joints replaces normal muscle tissue. People with arthrogryposis have severe muscle weakness and very restricted ROM, having almost no arm and shoulder movement (Sherrill, 1993).

Another disorder which can affect the peripheral structures of the body, namely bone development, is osteogenesis imperfecta (OI), or "brittle bone disease" (DiRocco, 1995). With OI there is a defect in the collagen fibers found in the connective tissue (bone, ligaments, cartilage, and skin). With this condition, bones are easily and repeatedly broken, and skin and ligaments become excessively elastic and hyperextensible which

causes severe joint instability. Most persons with OI are wheelchair users (DiRocco, 1995; Sherrill, 1993).

### **Barrier and Barrier-Free Fitness Environments**

All individuals deserve the right to choose where and with whom they want to exercise, as well as what fitness activities and programs they want to participate in and what kinds of equipment they want to use. Yet people with disabilities, including PMC, are often denied access to the full range of physical fitness opportunities that constitute these rights (Bullock & Mahon, 1995). Whether it be environmental barriers, physical limitations, or other perceived constraints (Crocker & Bouffard, 1990) there are many barrier issues of central importance to PMC wanting access to fitness facilities. Barriers will not disappear by themselves.

It is the process that becomes important in creating a barrier-free fitness environment. According to Sherlock-Glynn & Millar (1994) the idea of "barrier-free design" has been around for a approximately 20 years, and its meaning continues to evolve. Sherlock-Glynn and Millar describe the barrier-free philosophy as one that represents the people that make up our society. This design approach recognizes that people who use a particular environment are of different abilities and have individual wants and needs. A barrier-free environment is planned according to human need and strives to make the environment, such as a fitness facility, inclusive, accessible, and usable for everyone.

The barrier-free approach is one that is synonymous with what can be referred to

as a least-restrictive environment (LRE). The philosophy and principles of LRE are grounded in an integration/inclusion-with support services conceptual framework based on the belief that assessment, placement, instruction, and evaluation should be personalized and meet individual needs and abilities (Sherrill, 1994; Stein, 1994). So why are fitness facilities still being built that are inaccessible and unusable for PMC? Several barriers such as physical/structural, resource-related, and attitudinal barriers still exist which hinder the creation of barrier-free fitness facilities in their true form. This next section aims to identify and increase the awareness of accessibility issues and barriers to participation that exist for PMC.

### **Physical/Structural Barriers**

A physical barrier is characterized by architectural or structural inadequacies that exist both inside and outside a particular facility. According to Bullock and Mahon (1995), physical barriers are conditions of the physical environment that restrict or complicate access, movement, and/or participation. An active lifestyle for PMC is increasingly difficult to develop and maintain when community fitness clubs are not suitable or open at times convenient for them. There are many obstacles inside and outside of fitness facilities that are taken for granted by able-bodied individuals that make it difficult for PMC to manage and manipulate. Certain structural barriers, such as stairs, lack of elevators, narrow hallways, heavy doors, small restrooms and showers, high drinking fountains, and inaccessible telephones can all be limiting obstacles. Outside a facility, parking, curbs, steep uneven terrain, and uncleared walkways/trails can also

become potential barriers for PMC (ACTION, 1992; Bullock & Mahon, 1995; Hamel, 1992). It has been suggested that when planning to build a new fitness facility, one or more PMC should be involved in the planning processes (Seidler, Turner, & Horine, 1993). If this is not possible, several PMC can be asked to review the proposed plans before construction documents are finalized. Architects and building contractors can get a sense of what works and what does not work by consulting PMC about existing fitness facilities and how well they operate. Misconceptions about the feasibility and costs of creating physically accessible facilities have caused people to incorporate only minimal levels of accessibility in many new and renovated facilities (Sherlock-Glynn & Millar, 1994). Further education is needed to create the best and most cost-effective fitness facilities for eliminating such barriers and allowing easier access for PMC.

### **Resource-Related Barriers**

At times a fitness facility can be physically accessible in some capacity which enables PMC to get around. But what if a fitness facility cannot provide the resources to allow PMC the opportunity to participate fully in the fitness activities and programs. Resources that are unavailable but necessary for participation in a number of fitness and exercise-related activities are considered resource-related barriers (Bullock & Mahon, 1995). "The availability of resources is key in any change effort. If there is no money, or if the change process has to be nourished in an environment of general poverty, the prospects for success are dim" (Locke, 1992, p. 367). A lack of equipment, transportation, financial support, and social support are the main obstacles addressed

under resource-related barriers.

Fitness clubs can be rendered useless for PMC because of a lack of modified or adapted equipment for exercise programs. Community-based athletic and recreational fitness facilities and equipment are typically designed to accommodate the general population and are often of limited use to those whose characteristics and abilities may vary from the norm (Seidler et al., 1993). Without adaptive equipment, PMC may find it quite difficult to participate in activities and programs offered at a particular fitness facility. For PMC, such equipment can act as a second person that enables them to complete some of the exercises and routines during their workouts. It is a fitness club's responsibility, and in particular the practitioner in charge, to ensure that equipment needs are met prior to scheduled programs or for daily use. A wide range of useful and feasible ideas about equipment items and modifications can be used for any adapted or integrated fitness program, such as: velcro straps and attachments for strengthening grip, and securing hands to dumbbells or weight equipment, or securing stretch bands to floors, walls, and ceilings, and used for makeshift handles; dyna-bands or surgical tubing, and attachable cuff weights for resistive exercises; belts or straps to stabilize and secure people in wheelchairs (especially for people with hypertonic/spastic muscle activity) while performing certain exercises; sandbags or blocks for immobilizing wheelchairs; sturdy nonslip tables, benches and/or armless chairs for assistance with standing exercises; additional exercise mats for people with balance and coordination difficulties; portable or permanent ramps, additional hand grips, and sturdy plastic boxes for easier access to resistive equipment or swimming pool entry and exit; wall pulleys for upper

extremity exercises; and wheelchair-accessible strength equipment (e.g. upper extremity ergometric equipment: wheelchair treadmills, arm cycle ergometers both friction braked and electromagnetic) that able-bodied persons can use as well. Examples of other recreational and sports-specific equipment include one-armed paddles for canoeing, sit-skis, monoskis, modified tow ropes for water skiing, bowling ramps and bowling balls with handles, and a seated ice skate called a sledge for playing sledge hockey (Hardin, 1995; Lasko-McCarthy & Aufsesser, 1990; Nesbitt, 1986; Paciorek & Jones, 1989; Seidler et al., 1993). Having the necessary, feasible, and most cost effective adapted equipment within a fitness club will increase program success and make exercising easier and more enjoyable for PMC.

Transportation barriers can be a difficult challenge for PMC and fitness programs. If PMC cannot drive themselves or afford transportation to and from a community-based fitness facility, they cannot participate. "'Public transport' is not often available to disabled [sic] people, adapted or barrier-free transport is expensive. Services, benefits and vehicles do exist, however, which mean that disabled people can have freedom to travel" (Silburn, 1993, p. 226). Transportation remains a problematic issue warranting further attention.

Accommodating for special populations like PMC can become a financial struggle for fitness clubs. Programs, staff, equipment, structural modifications, and transportation all add up quickly. Simply put, if fitness clubs cannot pay their bills they cannot provide quality programs for special populations.

Special populations have typically been underserved by the recreation industry.



But now that fitness is increasingly viewed as a positive influence on both physical and mental health, there is greater interest in, and consequently more money available for underwriting recreational activities aimed at special populations" (YMCA, 1991, p. 22).

The more financial backing a fitness club can get, the better its chance for supplying quality programs. When fitness facilities can demonstrate good money management by implementing innovative ways of spending their money, such as improving physical structures, training and hiring qualified staff, buying feasible adapted equipment, and supporting transportation costs for PMC, it will build up their credibility and the confidence of people and agencies willing to give them money (Locke, 1992). Acquiring, then using money wisely, can lead to additional financial support on an ongoing basis and in the future.

At times, the availability of support services for providing social, moral, and professional support can be overlooked as a barrier of participation for special populations. When people with certain abilities such as PMC do not have groups or partners with similar abilities to associate with, relate to, and exercise with, they can become uncomfortable, unmotivated, and discouraged from participating. According to Brasile (1992), "a peer group of other individuals with disabilities provides the opportunity for one to initially redefine deviance, power, and self-esteem" (p. 296). Fitness clubs can help by targeting specific special populations to programs suitable for these people's wants and needs. Research by Levinson and Reid (1991) indicated that a lack of friends with common interests and abilities with whom to participate is a common

barrier for PMC and also for able-bodied individuals. If social outlets like friends, buddy systems, and properly trained staff were established, it would facilitate achievement of social as well as physical goals for many PMC. Through the development of a network of friends, PMC can learn more about themselves and others, and form a special bond in the sharing of their unique abilities (e.g., people with SCI who use wheelchairs) and similar experiences, interests, and challenges. These people can meet, participate in fitness-related activities, and make future plans for engaging in other activities together.

There is also a need by the fitness industry to provide professional support services for PMC by way of adapted physical activity specialists/instructors (of which there are few) or recreational/leisure professionals. In the inclusion process, the need for properly prepared and trained educators/instructors with background knowledge in adapted physical activity is growing (Depauw, 1986; Evans, 1986; Goodwin, 1987). These key people have an important role in the empowerment process for PMC (Hamilton, 1996). Through direct, individual contact with PMC, fitness professionals add support by providing help, instruction, information, and suggestions on adapted equipment and suitable fitness programs (Goodwin, 1987; Hamilton, 1996).

### **Attitudinal Barriers**

Despite efforts made through mandated legislation and international promotion of sport for athletes with disabilities, the social acceptance and inclusion of PMC within the fitness industry remains a serious issue (Tripp & Sherrill, 1991). According to Hart and Williams (1995), "no legislation, . . . will remove the attitudinal and communicative

barriers people with disabilities face daily" (p. 140). The perceived nonexistence, or limits placed on modified fitness programs for PMC further differentiates and allows ignorant attitudes to overwhelm them and make participation difficult. Swain, Finkelstein, French, and Oliver (1993) state: "Disability is not a 'personal tragedy' located within unfortunate individuals, but rather results from the structural and social organization of society" (p. 293). The problem lies not within the disability itself, but rather in the social stigma that accompanies it (Brasile, 1992). It is because of this type of social discrimination that PMC are denied equal opportunity.

Many able-bodied individuals would rather not have to associate with special populations at all. People are frightened and feel uncomfortable about having people different from themselves exercising alongside them in a fitness environment. As a result, they try to discourage them from participating. Able-bodied fitness instructors may be uncomfortable intervening with PMC because they are unsure of how to communicate properly (Hart & Williams, 1995). Fitness instructors and practitioners that do not know or care to know about their clients' wants and needs are unsure how they should approach, interact, and talk to and about PMC, or whether PMC are comfortable or uncomfortable discussing their disabilities with them (Fine & Asch, 1988; Fichten, Amsel, Robillard, & Tagalakakis, 1991; Hart & Williams, 1995; Royse & Edwards, 1989). Often, it's a person's use of language when communicating and referring to PMC and his or hers tone of voice that becomes dehumanizing. Other research (Rizzo & Wright, 1988) has shown that perceived teacher competence to teach students with special needs has either positive or negative attitudinal implications. Findings in such studies suggest

that negative attitudes held by teachers and physical educators toward persons with disabilities stem from their perceived or actual preparedness, experience, understanding, competencies, and abilities related to adapted physical education training (knowledge of assessment, program planning, individual education plans, awareness of resources, equipment needs, support services, and disability; Goodwin, 1987; Melograno & Loovis, 1991; Tripp & Sherrill, 1991; Watkinson, 1985).

Evidence clearly suggests that favorable, positive attitudes towards working with PMC can be cultivated by providing fitness practitioners and physical educators with the proper academic preparation, job-related training, information, resource materials, and most importantly direct contact and meaningful experience working/consulting with PMC (Block, 1995; Connolly, 1994; Patrick, 1987; Rizzo & Vispoel, 1991, 1992).

In addition to external attitudinal barriers, internal barriers such as the way PMC perceive themselves in terms of their health, body image, and self-confidence in their abilities can also present themselves as barriers to participation (Chris Fraser, personal communication, April 1995). The perception of weakness based upon attitudes toward a physical disability may lead to an imagined inferiority on the part of the PMC (Brasile, 1992). Many PMC have negative feelings about themselves which keep them at home. They want to avoid being centered out and embarrassed due to their special need(s).

### **Summary of Literature Review**

The literature review was intended to provide an overview of some of the issues related to barriers to participation within the fitness industry that exist for PMC. Having

looked at a number of mobility-impairing conditions, such as cerebral palsy and spinal cord injury, and discussed concepts related to barriers within fitness environments, I have set the stage for further inquiry into the aspects pertaining to barriers to participation within the fitness industry that exist for PMC.

In the following chapters, the lived experiences within the fitness industry of 4 individuals living with mobility impairments will be examined. Interview sessions with each individual informant will be used as a basis for interpreting the cause and impact of barriers to participation within the fitness industry that exist for PMC. A fitness protocol created from the analysis of the data from these interviews will also be presented and discussed.

## **CHAPTER THREE: METHODOLOGY AND PROCEDURES**

### **Overview**

This chapter explains the methodology and procedures that were chosen and used to complete this study. A description is provided of the research approach, methodological assumptions, research design, and participants. An outline of the data collection, data analysis, and limitations is presented.

### **Description of Research Methodology or Approach**

In a study intended to discover, examine, and describe the barriers to participation within the fitness industry that exist for PMC, it is essential to let the voices of those PMC be heard and valued. Therefore, the approach chosen for this study can be best defined as one that seeks to understand and empower. By the willingness of the researcher and PMC to engage together in the process of inquiry, a heightened awareness and recognition of the importance of the insights and experiences of PMC can occur through the translation, clarification, and reformulation of their original voice.

The interactive qualities inherent in the process of descriptive inquiry provide an avenue through which voices can speak, and the underlying meanings, feelings, and beliefs that characterize these voices can be heard, amplified, embraced, understood, and valued. The nature of this study is to inquire about the barriers to participation within the fitness industry that PMC are faced with. Therefore, this study calls for a methodological approach whereby the voices of the participants/informants are recognized, interpreted, and presented in a way in which the meanings are clearly understood.

### **Methodological Assumptions**

It would seem appropriate that research on the barriers to participation within the fitness industry for PMC can best take place within the context of community and educational institution-based fitness facilities and programs. Research of this nature must be designed to increase awareness and establish a clear understanding of the critical issues that surface in this study, in order to pave a path towards change. In the development of such a progressive process, an interactive or collaborative research approach is used. Both the researcher and participants are very much a part of formulating and shaping the investigation (Calhoun, 1993). The importance of the in-depth interview procedure as a means of collecting, analyzing, and understanding the first-person approach to the experience should be noted. Through the very essence of their experiences, the PMC informants participating in this study can relate to and have a clear understanding of the procedures and intent of the study. The data analysis (content and thematic) serves to emphasize and recognize the similarities, differences, and importance these experiences reveal, in terms of what PMC experience in the fitness environment, how each lives it, and the meaning of that experience for each individual who lives it.

### **Research Design**

The intent of this study was to discover and describe the barriers to participation within the fitness industry that exist for PMC. Therefore, the methodological design chosen for the context of this study can best be described as a descriptive, qualitative, emergent, collaborative approach. These design features will be ever present in the

construction of a disability readiness protocol for practitioners, and the synthesis of content and thematic analysis of insider stories from persons with mobility impairments.

The qualitative nature of this study is appropriate because it will examine, interpret, and understand the experiences of the participants/informants in a naturalistic setting. Within the qualitative paradigm, the collection and subsequent treatment of data are more flexible, allowing for the formation and extraction of rich information to come from more than one source. Within this study, rich information will emerge out of interview sessions, informal conversations, and fitness protocol response questionnaires. The qualitative character of the design demonstrates the breadth of desirable outcomes that can emerge from the data analysis (Peshkin, 1993).

The design is intended to be emergent. Knowledge is developed through the process of inquiry (Connolly, 1994), which is directly linked to a continuum of “knowing” through lived experience. Each experience creates a realm of possibilities to be investigated. Through a thorough review of current educational research, accompanied by the acknowledgement of existing ideologies and philosophies, and the identification by experts in the field of the existing problems and issues related to barriers within the fitness industry for PMC, predetermined ideas for categories and emerging themes were developed. Common themes led to the formation of anticipated research questions (foreshadowed problems; McMillan & Schumacher, 1993) used in the interview sessions to collect the data. However, such themes were used only as a starting point, and a conscious effort was made to not deliberately control the outcomes of the research. As patterns emerged from the data analysis, the importance and integrity of an



emergent design was ever present in the reformulation of the foreshadowed questions into the discovery, interpretation, and understanding of participant “meanings” of people, places, and processes within the context of this study (McMillan & Schumacher, 1993). Description of experience and collaborative interpretation of meaning were ongoing design features.

In choosing a collaborative research orientation, specifically an interview style of inquiry, an interactive partnership developed between the researcher and participants. Qualitative inquiry of this nature allows researchers and participants to collaborate as equal partners in the collection, construction, and critique of knowledge (Connolly, 1994, p. 307). The traditional power relationship between the researcher and his or her “subjects” is transformed into a shared sense of responsibility for data collection and outcomes.

The role of the researcher/interviewer created for the purpose of this study is changed from that of the traditional “outsider” to a collaborator-type role. This type of research required extensive time to establish rapport and trust with the informants and to generally become familiar and comfortable with each individual. During the data collecting process, the researcher became a sensitive listener and observer, and recorded phenomena as faithfully as possible (McMillan & Schumacher, 1993). The interactive qualities intertwined in this research design allowed the researcher the opportunity to discover, listen, record, analyze, understand, and interpret the richness found in the information, stories, and experiences told and lived by the participants, and to discuss the deeper meanings of the phenomenon under inquiry.

### **Selection, Background, and Justification of Participants**

The qualitative orientation of this study is based upon an in-depth examination, description, and understanding of the experiences, views, and opinions of two small groups of expert informants. For this reason a purposeful sample is appropriate and was used. The primary group of expert informers or “insiders” participating in the study consist of 4 people who live with mobility challenges and have a vested interest in the current status of PMC within the fitness industry in light of their personal and professional experiences. The reason for choosing these 4 individuals was twofold. First of all, all 4 informants were convenient and accessible to me in terms of the time and place needed to conduct this study. Secondly, I knew each person prior to the commencement of this research study, and through my personal judgement of character, as well as my knowledge and exposure to their workout habits and routines, I considered these four people to be quite “representative” of the kind of PMC you would find involved and participating in various forms of physical activity within fitness-related environments. (Each of the informants’ unique characteristics and personal attributes as they relate to the area of fitness and disabilities are outlined in the next subsection of this chapter, Introducing the Key Informants). The in-depth interview sessions between the researcher and these 4 informants constitute the basis of this study.

The other group of participants consisted of 4 experts employed in the fitness field as fitness practitioners and/or administrators, who are members of the Canadian Personal Trainers Network (CPTN). These CPTN assessors/trainers are characterized as well informed leaders in the fitness community. Their individual responsibilities range

from providing inservice training of and consultation with fitness instructors and staff to giving workshops on various aspects and issues related to physical fitness, as well as designing fitness programs and protocol for use in fitness clubs and facilities.

The information obtained from these 4 participants by responding to a fitness protocol which was developed from the original data was used to supplement, further strengthen, and validate the original data collected and analyzed from the 4 primary participants. Together, both groups create a justifiably strong sample of key informants, each giving his or hers own different perceptions on, and providing extensive and insightful knowledge about, the barrier issues surrounding PMC within the fitness industry in regard to their treatment and opportunity to participate.

### **Introducing the Key Informants**

This section of the chapter introduces each participant individually, in alphabetical order. For the purposes of protecting the anonymity of the participants, each person will be referred to only by his or her designated initials (third initial indicates the sex of the participant) throughout the remaining chapters. The following are the 4 primary informants that participated in the study:

#### **DQF**

DQF was currently enrolled as a student at Brock University, majoring in Recreation and Leisure Studies. She is a young woman who has cerebral palsy, and is classified as CP 6. This means she has moderate to severe involvement of three or four limbs, with balance and coordination difficulties. This classification has a wide range of

ability, and DQF has moderate use of her limbs. DQF's experience with balance and coordination difficulties and her associated dysfunctions of near-blindness in one eye, strabismus, and a learning disability further compound her special need. DQF is a remarkable advocate and role model for persons with and without disabilities who are trying to establish their rightful place within higher education institutions.

### **CFF**

CFF works in a hospital as a clinical dietitian and research associate. CFF is an individual who lives with an acquired disability. She is a paraplegic who is paralyzed from the waist down and is a wheelchair user for daily mobility needs. CFF is a member of the Canadian Personal Trainers Network (CPTN) and is an active fitness consumer and participant. She is an extraordinary role model, advocate, and source of inspiration for PMC and others she associates and works with on a daily basis.

### **LHF**

LHF is an elementary school physical education teacher who lives with an acquired below-the-knee amputation of her left leg. LHF has a prosthetic transplant on her left leg, and uses a cane to assist her for everyday mobility purposes. She actively participates in cross-country sit-skiing, and is a medal winner in wheelchair track races in the Paralympics and World Championships. LHF has served on the board of directors for her local YMCA., and is a speaker for FAME. (Female Athletes Motivating Excellence). At the time of her interview LHF was training in hopes of becoming a member of the cross-country ski team for the Winter Olympics in Nagano, Japan in 1998.

## TCM

TCM, who characterizes himself as an avid tennis player, is a holder of two doctoral (PhD) degrees, one in the area of Religious Studies, and the other in the field of Health and Communication. For the past 25 years, TCM has lived with severe back and hip displacement problems. These conditions have caused debilitating back spasms and periodic periods of immobilization when he cannot walk or do any kind of physical activity. TCM has also been diagnosed with a condition called CFIDS--chronic fatigue immune dysfunction syndrome, or myalgic encephalomyelitis. This condition affects TCM's muscles, joints, connective tissues, senses, and cognitive functions. He lives with tendonitis in his ankles, knees, elbows, and shoulders. TCM is a person who struggles with hidden physical disabilities which bounce back and forth unpredictably from mobility to immobility on an ongoing basis.

### **Data Collection and Recording**

Beginning in February of the 1996-1997 academic year, through informal conversations that took place at Brock University and in some cases over the telephone, my intended research plans were discussed with my 4 potential research informants.

During these time periods each participant expressed a general interest, support and

encouragement, and shared some of his or her own views, feelings, and personal experiences as they related to my proposed research study. Shortly after these personal contacts were made, I sent a Letter of Informed Consent (refer to Appendix A) to each participant to read and respond to. The letter explained the purpose and confidentiality of

the research study, and requested each informant's participation in the study and appointment for an interview session. All the informants expressed their willingness to participate in the study through one form of verbal agreement or another.

During the months of March and April 1997, all four interview sessions were conducted. Three of the four interviews took place at the same setting, in the Physical Education Complex at Brock University, while the other occurred over the telephone via a home-to-home phone call. A guide consisting of seven research questions was used for the interviews (refer to Appendix B).

The principle method of data collection for this study was formal interview sessions with each participant. The primary source of data from these interviews was the verbatim accounts of what transpired in each interview session (the responses to the questions; sample excerpts in Appendixes C to F). The type of interview chosen for the purpose of this study was a standardized open-ended interview (McMillan & Schumacher, 1993). The in-depth interviews were used to obtain the latest information-rich material about the informants' insights and experiences. Seven predetermined research questions (refer to Appendix B) were used as the substance for the in-depth interviews. Care was taken to reduce interviewer bias by ensuring that consistent wording and sequence of questions was used in all four interview sessions. Each interview lasted approximately 30 to 45 minutes. The information obtained in each interview was recorded fully on audiotape and transcribed completely prior to analysis. The transcribed interviews of the 4 informants (DQF, CFF, LHF, and TCM) constitute one of the data sources of this study.

\*To supplement the initial data collected through the interview sessions, informal conversations took place with each key informant some time following the formal interview period. On occasion during these conversations, additional information or elaborations and extensions of the initial meanings of ideas and experiences were given and discussed by and with the informants. The purpose of the informal conversations was to help clarify and further validate the quality of the original data.

Other data were collected through a “Fitness Industry Awareness Protocol” which was developed from the other data. This protocol, presented in the form of a “statement response questionnaire” (using a scale from 1 = strongly disagree to 10 = strongly agree) was given to and filled out by 4 Canadian Personal Trainers Network (CPTN) assessors/trainers. As well as being a data source, the protocol further acknowledged the existence of barriers within the fitness industry and added clarity and validity to the other data of this study.

### **Data Organization and Data Analysis**

After fully transcribing the stories and insights from the interviews of the PMC cohort (DQF, CFF, LHF, and TCM) of this study, a careful reading, rereading, and marking (highlighting and counting lines) of the contents within each interview served as a means of sifting through the data to substantiate the presence of generic categories such as people, places or environments, happenings/occurrences and issues (Bogdan & Biklen, 1982; Marshall & Rossman, 1989). For example, each informant distinguished between types of people: people encountered in the fitness field-- past or present experiences,

peers, friends or PMC, administrative figures, or persons interacting on a circumstantial basis. Each informant discussed places or environments: community-based fitness clubs, weight rooms, university gymnasiums, tennis courts, swimming pools, or road-race courses. Each informant talked about happenings or occurrences: positive experiences, disempowering experiences, or frustrating events.

Using a content analysis process, particularly a within-case content analysis, decisions were made as to whether the aforementioned categories were indeed applicable to the patterns emerging from the analysis of the interviews. As a starting point, and to ensure that the meanings within the answers, experiences, and stories expressed through the interviews were well represented, deductive strategies (having a priori categories in mind from personal background, and literature) were used to formulate three main categories: resource-related barriers, attitudinal barriers, and physical barriers. Further decisions were made on how to focus on the indigenous typologies (insider driven) found under each category. In keeping with the emergent qualities of this study, the process of content analysis moved away from deductive analysis by allowing the emerging patterns to guide the creation of several subcategories under each main category. Each subcategory placed under a main category was defined as it emerged from the data analysis. To illustrate this, each category, its general definition, and sample excerpt taken from the transcribed interviews provided by all 4 informants, are presented as examples. Direct references to interviews were marked as follows: (LHF, 8) for example refers to LHF's interview session, line 8 as counted in the original transcribed interview used for the purpose of this study.



## **Resource-Related Barriers**

**Programs and equipment.** Entries which refer to the need, availability, or lack of adapted programs and equipment. Example: “Besides using the equipment, they don’t have the adapted equipment that is necessary.” (LHF, 8).

**Support people.** Entries which indicate support from friends, peers, volunteers, or staff. Example: “What has really worked is me pairing up with someone. Just going with a friend to a facility and working with them” (DQF, 40-41).

**Financial.** Entries which refer to the cost of making adaptations for accessibility. Example: “the fitness facilities don’t feel it is worth their while financially to adapt or make adaptations for accessibility” (CFF, 24-25).

**Fitness staff.** Entries which refer to how well fitness staff are informed, knowledgeable and educated about PMC clientele. (e.g., “I would like someone who knows my body physiologically better than I do” (TCM, 36-37).

**PMC and adapted fitness specialists.** Entries which refer to the status (involvement) of specialists within the fitness industry. Example: “I think you need to look at how people are being trained in the field and reconfigure some things to allow PMC to play an active role” (DQF, 58-59).

## **Attitudinal Barriers**

**Stereotypes/labels.** Entries pointing to the names, pictures, and perceptions contrived by people, in referring to people with disabilities. Example: “...there is still a whole stereotype still, that people with disabilities are the ‘weak’” (LHF,20-21).

**Assumptions.** Entries which refer to how people take for granted something about themselves in relation to PMC. Example: “...people don’t understand that there are people with mobility limitations who want to pursue recreational fitness” (CFF, 25-26).

**Resistance to change.** Entries which refer to the fitness industry’s ignorance or unwillingness to include, adapt or modify for PMC. Example: “I think there is a lot of resistance to adaptation in the planning because it is going to take more work” (TCM, 89-90).

**Self-perception.** Entries which refer to the attitudes PMC have about themselves participating in physical activities within a fitness environment. (e.g., “I think attitudes and self-esteem of the disabled person themselves can be a barrier” (CFF, 20-21).

### **Physical Barriers**

**Space and organization.** Entries in which reference is made to the ongoing arrangement of equipment and other physical structures within a fitness facility. Example: “If I didn’t have to bend down so low to pick up a barbell, or whatever, than it wouldn’t impact my balance as much” (DQF, 7-8).

**Facility access.** Entries in which reference is made to the appropriateness of architectural or structural design for physical access into and around a fitness facility. Example: “If there is six to eight stairs to get to the courts it would be a problem” (TCM, 1-2).

**Workout environment.** Entries which refer to one’s comfort level with the

people and surroundings where they train, or do other physical activities. Example: “If the lights are too bright then that’s going to bother me” (TCM, 17-18).

Before analyzing the actual content of the interviews, an inspection of the external details of the transcribed interviews was conducted which included length (of entry under each individual question, the interview in its entirety, variations in the length of entries under different questions), and language (objective, subjective, bias, neutral, indifferent, emotional, or personal).

Within and across each interview and question, entries were highlighted using different colours which represented the predetermined subcategories under the three main categories discussed earlier. A matrix indicating the number of entries found in each of the categories/subcategories was prepared for each of the 4 informants.

Continuing with the in-depth analysis, I then engaged in a cross-case thematic analysis for the purpose of presenting what emerged from the content analysis in some pattern that would do justice to the stories, messages, and experiences, as described by the informants within the data (Connolly, 1994). From the entries made under the content analysis categories/subcategories, I examined the data to establish patterns common to all 4 informants. To identify themes, I rearranged the individual interview entries to look for connections or patterns within and across questions and cases/informants, and “most frequently mentioned” statements, phrases, descriptions, examples, stories or experiences as expressed through the informant’s language. From patterns established in the data analysis, five broad themes, presented in the form of thematic statements, were created: (a) living in a world that knows little “difference”; (b) adaptations, modifications and

refinement: a journey towards change; (c) making a case for inclusion: ask the experts; (d) designing for today and tomorrow: accessibility for all; and (e) lending a helping hand: the difference friends/peers make.

As these individual themes emerged from patterns found from the data analysis, descriptive features that characterized a particular theme were used to identify the substance and meanings present within that theme. A list of descriptive features may be found under their corresponding thematic statements in the Findings section of Chapter Four which deals with the thematic analysis of the data. In order to provide the reader with a clearer sense of the essence of each theme, selected examples of raw data (specific data excerpts) have been included in the thematic analysis section found in the Findings section of Chapter Four.

Specific criteria were used as a guide for choosing the raw data excerpts to be included in each of the five themes. Themes were based on criteria indicative of qualitative-based data: experiences, statements, and stories that were oriented (kept the question/issue in focus), strong and definite, rich (filled with detail and description), and deep (illustrative of layers of meaning and awareness; Connolly, 1994), as well as my own intuitive knowledge and familiarity with the data. Using these criteria, I aimed to “translate” and “thematize” the voices of the informants into what they acknowledged to be the most pressing barrier issues PMC face within the fitness industry.

Based on the information arrived at through the establishment of patterns in the data, and the development of thematic statements via content and thematic analyses of the data, a protocol called the “Fitness Industry Awareness Protocol” was created. The

protocol in its entirety consisted of 25 statements covering seven different areas/barrier issues. These seven were as follows: PMC are nonexistent in the planning processes of the fitness industry; lack of knowledge/education and proper training of fitness staff, and stereotypes and assumptions about PMC; resistance to adaptations related to cost, time effort, and lack of adapted equipment; accessibility, space and organization; support systems; least-restrictive environments; and safety issues. The fitness protocol can be found in Appendix G. The overall content of the protocol was developed from, and was directly linked to the barrier issues, insights, and stories described by the PMC informants in the five thematic statements developed out of the thematic analysis of the data. The protocol was designed as a “statement response questionnaire” which was presented to and answered by 4 CPTN assessors/trainers. The analysis of the responses to this protocol served to acknowledge the existence of barriers to participation for PMC from a fitness industry’s point of view, and to identify sites of intervention where prevalent barrier issues are concerned. Furthermore, the valuable insights gained from the CPTN assessors/trainers “commenting on” and “doing” the protocol served to provide a snapshot of fitness practitioners readiness to work with disability.

This is a grounded analysis, since the Fitness Industry Awareness Protocol is developed from the thematic analysis, and each theme from the thematic analysis is directly associated with the content analysis, which in turn is directly linked to the insights, stories, and experiences taken from the interview sessions provided by each of the 4 informants. The protocol is therefore grounded in each of the informants’ depiction of lived experience as endured and encountered during and within fitness-related

environments and activities.

### **Limitations of the Study**

Certain parameters as they relate to the data collection, recording, organization, and analysis, as well as the overall findings of the study, need to be addressed. A clear explanation of the parameters in regard to the credibility of the research design, procedures, setting, and participants follows.

The amount of rich data which accumulated from the four interview sessions posed a problem of selectivity. Not every transcribed entry could be included in the findings. Therefore, choices needed to be made on which pieces of information would be selected to appear in Chapter Four of this study. The criteria described earlier in the data organization and data analysis section of this chapter were used as a guideline for making decisions on the final selections. To remain consistent, care was taken to ensure that an equal number of transcribed entries were (where practical) selected from each individual informant to be included in the findings.

Being in different places at different times made it difficult to maintain regular communication with my informants. Therefore, consistent discussion, follow-up, and feedback with and from the 4 informants of this study, in regard to the meaning, shaping, and presentation of the findings was difficult to maintain.

Choosing a qualitative research approach to the study implies that replication of the study is not possible. The insights and information collected and analyzed by listening to and recording personal experiences as lived and told by unique individuals is

impossible for anyone to totally retell or repeat. However, in following the methodology and procedures, the process of inquiry used in this study can be repeated in a different context with a different group of participants.

## **CHAPTER FOUR: FINDINGS**

### **Introduction**

This chapter presents the findings of this study. Following a methodology by which descriptive, emergent, qualitative data were collected, analyzed, and interpreted, a summary of the manner in which the data were analyzed is described, followed by the findings of the analysis of the data. The chapter begins by introducing and presenting the findings from the content analysis process, and continues with the presentation and findings of the thematic statements which emerged from the thematic analysis of the data. The chapter concludes with the findings related to the Fitness Industry Awareness Protocol.

### **Summary of the Content Analysis Process: Identifying the Barriers to Participation**

The core of this study consists of four transcribed interviews which formed the basis of the data collected from the four informants. The process of content analysis was used to formulate categories/subcategories (barriers to participation) from the transcribed interviews. The content analysis process included taking note of the number of entries in each category and related subcategories within and across all interview questions, interview sessions, and informants. Tables which provide a comparison matrix, and a summary of the insights and issues of concern for each of the 4 informants, are found in the next section of this chapter which deals with the findings of the study related to the content analysis of the data.



Table 1

A Comparison of the Number of Entries under Content Analysis Categories/Subcategories: DQF – Interview Session

<b>Resource-related barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Attitudinal barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Physical barriers:</b>	<b>Interview session entries (<u>n</u>)</b>
<b>Adapted programs &amp; equipment</b>	0	<b>Stereotypes &amp; labels</b>	4	<b>Space &amp; organization</b>	4
<b>Support people</b>	12	<b>Assumptions</b>	4	<b>Facility access</b>	1
<b>Financial</b>	3	<b>Resistance to change</b>	7	<b>Workout environment</b>	0
<b>Fitness staff</b>	4	<b>Self-perception</b>	2		
<b>PMC &amp; adapted fitness specialists</b>	10				
<b>Total entries:</b>	29	<b>Total entries:</b>	17	<b>Total entries:</b>	5

### **DQF's Insights and Concerns**

A comparison of the frequency of references found across the three main categories (resource-related barriers, attitudinal barriers, and physical barriers) suggests that DQF's entries in the category resource-related barriers occur most frequently (Table 1). DQF's many entries under this category are mainly found as references to support people, and PMC and adapted fitness specialists. With respect to the subcategory Support people, these entries refer to DQF's need and desire to have ongoing, consistent support from her friends, peers, and other acquaintances when interacting with and using resistive training equipment for her workouts. Example: "I like to work out and I would work out every day if I could, but I can't do it by myself. I can't pick up the equipment by myself and put it down and still be safe. I need assistance with putting on the weights and getting the form right" (DQF, 10-12). In addition, DQF's references to PMC and adapted fitness specialists in referring to their role in the fitness industry are noted due to their apparent frequency. Example: "there needs to be people in the industry that have disabilities themselves because they can bring a tremendous wealth of knowledge that other people just don't have. . . . They are going to know quite instinctively what works and what does not work" (DQF, 37-39, 61-62). These entries indicate DQF's well informed knowledge and awareness of the positive impact PMC and adapted fitness specialists can have in establishing a more barrier-free fitness environment. It should be noted that as a whole these entries do not refer to what PMC and adapted fitness specialists are currently doing within the fitness industry, but rather what positive

influence they could have if or when they are welcomed by the fitness profession to take on a more active role.

Under the category attitudinal barriers, the subcategory resistance to change reflects the highest number of entries. DQF brings to attention the fact that PMC are welcomed into fitness clubs, but once inside no one is willing to take the time and effort to change or modify in order to accommodate their special needs.

Note is also taken with respect to the entries which are not represented well, or not at all. Under the category physical barriers, references to space and organization, facility access, and workout environment subcategories are almost nonexistent.

### **CFF's Insights and Concerns**

Throughout the interview session, CFF's many entries in the resource-related barriers category are mainly found as references to fitness staff, and PMC and adapted fitness specialists (Table 2). These entries refer to CFF's desire for better qualified and specialized fitness staff within the fitness industry. Example: "It's their [fitness staff] knowledge. No one has gone to educate them. They may think they are open-minded about it, or they may not have even thought about it before because nobody (PMC) has ever approached them. . . . Try to get fitness instructors who are regular fitness instructors trained in a specialty of adapted fitness" (CFF, 36-37, 48-49). The sense that regular fitness staff are not educated or well informed about the wants and needs of PMC who want to pursue recreational fitness speaks strongly throughout CFF's interview. For CFF,

Table 2

A Comparison of the Number of Entries under Content Analysis Categories/Subcategories: CFF –Interview Session

<b>Resource-related barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Attitudinal barriers:</b>	<b>Interview session: entries (<u>n</u>)</b>	<b>Physical barriers:</b>	<b>Interview session entries (<u>n</u>)</b>
<b>Adapted programs &amp; equipment</b>	2	<b>Stereotypes &amp; labels</b>	2	<b>Space &amp; organization</b>	3
<b>Support people</b>	0	<b>Assumptions</b>	4	<b>Facility access</b>	11
<b>Financial</b>	4	<b>Resistance to change</b>	1	<b>Workout environment</b>	0
<b>Fitness staff</b>	7	<b>Self-perception</b>	3		
<b>PMC &amp; adapted fitness specialists</b>	5				
<b>Total entries:</b>	18	<b>Total entries:</b>	10	<b>Total Entries:</b>	14

the proper training (education) of fitness staff by knowledgeable people (PMC and those specifically trained in adapted fitness) is a necessary and imperative component for establishing barrier-free environments within the fitness industry. The indication of the absence of such training programs for fitness staff becomes quite apparent during CFF's interview session

The greatest and most consistent number of entries came under the subcategory facility access which emerges from the physical barriers category. Given the nature of CFF's mobility impairment, this ought not to come as a surprise. Being a wheelchair user, CFF has a heightened awareness of the issues surrounding wheelchair accessibility into all public facilities, including fitness facilities. CFF's experiences and concerns with accessing fitness facilities are stated clearly and critically throughout her interview. Explicit references to structural difficulties and deficiencies (e.g., stairs, bathrooms) and lack of Canadian legislation on physical accessibility characterize the entries. Example: "With respect to X's gym, they are at least down 20 stairs. They are in the basement of a plaza and everywhere you want to go in the gym is up a couple steps and down a couple steps, and they don't have any wheelchair accessible bathrooms" (CFF, 74-77).

Comparatively speaking, the least number of entries fall into the category attitudinal barriers. The few entries mostly found under the subcategory assumptions reflect the general ignorance the fitness industry has about PMC wanting to pursue recreational fitness.

Table 3

A Comparison of the Number of Entries under Content Analysis Categories/Subcategories: LHF--Interview Session

<b>Resource-Related barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Attitudinal barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Physical barriers:</b>	<b>Interview Session entries (<u>n</u>)</b>
<b>Adapted programs &amp; equipment</b>	2	<b>Stereotypes &amp; labels</b>	7	<b>Space &amp; organization</b>	0
<b>Support people</b>	4	<b>Assumptions</b>	9	<b>Facility access</b>	2
<b>Financial</b>	2	<b>Resistance to change</b>	13	<b>Workout environment</b>	1
<b>Fitness staff</b>	4	<b>Self-perception</b>	2		
<b>PMC &amp; adapted fitness specialists</b>	1				
<b>Total entries:</b>	13	<b>Total entries:</b>	31	<b>Total entries:</b>	3

### **LHF's Insights and Concerns**

LHF's entries in the attitudinal barriers category are the most significant and numerous of all three categories, especially in the resistance to change, and assumptions subcategories (Table 3). The high frequency of entries in the subcategory resistance to change refer to LHF's experiences and struggles with not being included or not being allowed to participate in a variety of fitness-related activities, both at recreational and Olympic levels. Example: "...they didn't like the image of the wheelchair at that particular fitness facility. I've also gone to that same fitness facility in the region and asked if I could play tennis there in a wheelchair, and they came up with every excuse. This was almost 10 years after my accident...they said we can't help you, we can't coach you, and I kept saying I just want to play tennis...They said, oh the wheelchair is going to mark the floors. . . this isn't the place for you. It just went on and on" (LHF, 29-35). LHF's frustration with the unwilling, unchanging attitudes of people she has encountered who are associated with the fitness industry speaks strongly in the entries. There is the sense of the "I always feel like I'm fighting" emotion which resonates throughout the resistance to change entries in LHF's interview session.

LHF's references to assumptions are also noticeable. LHF explains how she has been treated differently by people within the fitness industry based on what they perceive she can or cannot physically accomplish. Example: "People have the tendency to generalize with a disability; because you have a certain disability everyone is the same. I tried to tell him that we are not all exactly the same. . .you should put away your cane or get rid of your chair, and do this on your leg. Well excuse me, you don't see what is

Table 4

A Comparison of the Number of Entries under Content Analysis Categories/Subcategories: TCM --Interview Session

<b>Resource-related barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Attitudinal barriers:</b>	<b>Interview session entries (<u>n</u>)</b>	<b>Physical barriers:</b>	<b>Interview session entries (<u>n</u>)</b>
<b>Adapted programs &amp; equipment</b>	3	<b>Stereotypes &amp; labels</b>	3	<b>Space &amp; Organization</b>	4
<b>Support people</b>	0	<b>Assumptions</b>	10	<b>Facility access</b>	3
<b>Financial</b>	1	<b>Resistance to change</b>	4	<b>Workout environment</b>	4
<b>Fitness staff</b>	3	<b>Self-perception</b>	0		
<b>PMC &amp; adapted fitness specialists</b>	4				
<b>Total entries:</b>	11	<b>Total entries:</b>	17	<b>Total entries:</b>	11



inside the legs” (LHF, 40-44).

In the category resource-related barriers, references to support people, and fitness staff are worthy of mention. Overall, the tone of the entries echoes the desire to have a network of support people in place, and well educated, knowledgeable fitness staff (those who know how to cater to the wants and needs of PMC ) for enabling PMC to participate successfully and to their fullest potential.

In the interview session, little to no mention of references to the category physical barriers and the subcategories therein are made.

### **TCM's Insights and Concerns**

A comparison of the entries found across the three categories indicates an even distribution in the number of references given for each corresponding subcategory, with the exception of entries TCM makes under the subcategory assumptions (Table 4). The subcategory assumptions reflects the highest number of entries for the entire interview session. TCM, in referring to assumptions, discusses how quick people are to take for granted a body that is healthy and “normal”. Example: “If people were to think more about barriers...for people with mobility impairments, I think it would force people to think about their own bodies. To think about what I call the possibility of “embodied contingency”, that is we can take our bodies for granted for so long and eventually it’s going to break down, either in injury, illness, or accident, or whatever, where the body does not recover and get back to the same place. If we could think in those terms, that I’m not so different than people with mobility impairments,. . . then I think we can think

more in terms of building an environment that is accessible for all of us” (TCM, 97-105).

TCM’s desire for people within the fitness industry to change their attitude in the way they think about disability in general animates the interview.

In the category resource-related barriers, references to PMC and adapted fitness specialists, and fitness staff are indications of TCM’s awareness of his need for well trained, knowledgeable fitness staff to ensure his own safety within a fitness environment, as well as the benefits of having PMC involved in the planning and programming processes within the fitness industry.

Note is also taken with respect to the entries made in the physical barriers category, particularly those under the subcategory workout environment. With respect to the workout environment, TCM’s entries reflect the problems he can encounter when training in any given fitness facility. Example: “Noise would be a big thing, that would be a social barrier. One of the things I hate the most in the training room is people yelling back and forth to each other” (TCM, 9-10). Due to TCM’s condition which makes him photo and audio sensitive, things like noise (yelling), lights, and music can have a profound negative effect on his workouts. TCM’s entries indicate that these types of social barriers can easily be overlooked in any fitness environment.

### **Summary of the Thematic Analysis Process:**

#### **The Relationship Between the Fitness Industry and PMC**

Five broad thematic statements emerged from the thematic analysis of the data:

(a) living in a world that knows little “difference”; (b) adaptations, modifications and refinement: a journey towards change; (c) making a case for inclusion: ask the experts;

(d) designing for today and tomorrow: accessibility for all; and (e) lending a helping hand: the difference friends/peers make. The five thematic statements which will be

explored in this section of the chapter will provide a descriptive commentary on the existing relationship between the fitness industry and special populations such as PMC.

The distinctive attributes or "descriptive features" that characterize the relationship

between the fitness industry and the PMC informants, as they relate to PMC's treatment and opportunities to participate within various fitness environments will be identified and

listed under each thematic statement. In the thematic analysis process, I also included

sample raw data excerpts from the transcribed interviews of each of the informants. The

selection of these excerpts was based on aforementioned criteria that the data had to be

oriented, strong, rich and deep, as well as unique. The examples of raw data excerpts will

be used as a means of showing the heterogeneity of each informant within each

descriptive feature and thematic statement. In the next section, each of the five thematic statements are presented.

### **Living in a World that Knows Little “Difference”**

This thematic statement can be characterized by the following descriptive features:

- (A) acknowledgment that inclusion and a change in attitude is a long, difficult process;
- (B) working and communicating with PMC: anxiety, awkwardness, and ignorance associated with lack of direct experience and understanding with and about PMC;
- (C) assumptions, generalizations, and labels: taking for granted what PMC can do, what PMC cannot do, how PMC should do it;
- (D) lack of proper education, training, and knowledge about disabilities; and
- (E) informants’ shared experience of frustration and sense of disempowerment with treatment and excuses: noticing others’ prejudices and unwillingness to make a difference.

The examples provided for descriptive feature (A), related to the informants’ understanding, but general frustration with how long it has taken for the fitness industry to even take care of the basics of providing accessibility for PMC, namely the shaping of positive attitudes toward PMC.

"It’s hard to get people to change their attitude. It’s hard for them to see that everyone has value and that everyone deserves an opportunity and the choice of whether they want to or not. Not just to limit them and treat them like a liability instead of someone that they could really learn from"--*DQF*.

"Attitudes have come a long ways, but sometimes you feel that you're sort of an add-on, but I don't think still yet that we are included, like inclusion I think it is always an afterthought. It's a long process"--*LHF*.

The example provided for descriptive feature (B), pointed out that fitness practitioners had trouble interacting with PMC because they had seldom been placed in a situation or activity context where they had to work with, make decisions, and provide suggestions for PMC clientele.

"Well I think that professionals in the industry give it a good lip service, oh yes we will work with you, but when it comes down to yes I want to participate, they just don't know how and their stress level goes way up, and it's like you become this inconvenience for them because they can't get away from the baggage that they carry. You're standing right in front of them, and you're not going away, but they would like you to. Part of them wants you to participate too, but they just don't know how to make that happen"--*DQF*.

The examples selected for descriptive feature (C), really emphasized how much the fitness industry focuses and revolves around working within an able-bodied context as opposed to basing their instructional and program decisions on individual ability. The informants talked about the seeming narrowmindedness of fitness practitioners in their assuming that everyone has the same abilities, and that everyone experiences activity and exercise the same way.

"I went to a facility and I was working out and he was showing me how the equipment works and we got down to the pull-down bar and there was something he

wanted me to do. He wanted me to stand and pull it down. Well I just don't have the balance for that and I said to him that I could not do that. 'Well why?' 'Well because if I do that I am going to fall on my rear end here.' 'But just try it', and I went, 'look buddy I can will it to happen, but it's not going to happen because this is my body and this is what I know. Don't insult my intelligence by saying to me if I work or try harder that it will happen.'"--*DQF*.

"I think general ignorance, people don't understand that there are people with mobility limitations who want to pursue recreational fitness, they just don't realize people want to. They don't realize that it does not have to be a hospital environment for them to work out; and not everybody is at high risk for injuries just because they have a mobility limitation"--*CFF*.

"Another example, I've actually been refused saying that 'you can't do this, it is too much for you', and people are trying to make the decision for me. Let me decide. People have a tendency to generalize with a disability, because you have a certain disability everyone is the same. I tried to tell him that we are not all exactly the same. . . 'you should put away your cane or get rid of your chair, and do this on your leg'. Well excuse me you don't see what is inside the legs. I guess sometimes people are trying to be friendly and helpful and they think they are"--*LHF*.

"There is the assumption that there is a normal body and in activities you have to do things a certain way, and so they are not going to make any adaptations, and labelling people disabled, and if they can't do it go somewhere else. . . . If people were to think more about barriers, physical barriers and social barriers for people with mobility

impairments, I think it would force people to think about their own bodies. To think about what I call the possibility of “embodied contingency”, that is we can take our bodies for granted for so long and eventually it’s going to break down, either in illness or injury and we recover. Or it happens more than people want to think about there is injury, illness, or accident, or whatever, where the body does not recover and get back to that same place. If we could think in those terms, that I’m not so different than people with mobility impairments. I’m one accident away or one illness away, then I think we can think more in terms of building an environment that is accessible for all of us, and that is very threatening for people to think how close they might be to disability. So the attitude there is that anything less than what the cultural idea of normal, is bad, and everything should be done to try to get back and to be like everybody else. What that does is it marginalizes lots of people and it’s not good for people to think of themselves as normal, and can take their bodies for granted.”--*TCM*.

In descriptive feature (D), the informants talked about the importance of establishing proper training programs, education, and knowledge within the fitness industry about fitness and PMC, which in their opinion are qualities currently lacking within the fitness industry for allowing PMC to make safe and self-fulfilling choices in pursuing and achieving their fitness goals.

“I think the professionals have not been trained around any kind of sensitivity. We train people who are able bodied, so therefore this is the way it is and if you don’t fit that, well then, I don’t know what to do for you because this is what I’ve been trained to do”--*DQF*.

"It's their knowledge. No one has gone in to educate them. They may think they are open-minded about it, or they may not have even thought about it before because nobody has ever approached them. I think it is just a lack of education of the community at large about the needs of people with mobility limitations who want to pursue recreational fitness."--*CFF*.

"My skiing experiences have been positive, but again at some places they hadn't even seen a sit-ski before and there is national competitions there every year. But, then alpine skiing too, there is a lot of places where we still can't go because people don't know enough about the mono-ski and they get nervous about it. So sometimes its just a lack of knowledge for those people, not a stereotype that you can't do this; education is in there too. . . . The way people are educated is important. I think it is too general, when you tell them about amputations for example, its fine to know about amputees, but we are all so different and that's the problem. You say amputees are like this, well they're not. That's what scares me about when you start breaking it down into this disability and that disability. Sometimes I think certain concepts or philosophies. . . the thing with disability is that they are individuals, I think people need to examine their own attitudes. Sometimes people who have been to school or work and have been educated think that they're OK, and when you come down to a situation you're not really, you have decision making, so I think education is important."--*LHF*.

"I would like someone who knows my body physiologically better than I do. I can think about what hurts, and I know I do things that I probably should not be doing, but I do because it doesn't hurt in the moment, but it is going to cause problems later. I



would suppose a knowledgeable staff member would be able to say, 'OK let's talk about your body', and it is someone who knows about how different bodies work; and as I am saying this, it sounds like it is too much to ask, that training facilities would have someone who would know that kind of thing. You go in and they tell you about how many reps, how much weight, and give you a chart, and here's the equipment and go ahead. For me that is dangerous. I've trained here with X and she's great because she says you can do this, your body can do that, watch out for this, be careful, and that's been very helpful. I've trained a couple times with other people and have ended up in some pretty serious pain afterwards, because I thought I would do what they did and be careful. A knowledgeable staff member would be the main one for me because I don't know what is going to work and what will be stressful, and what's not"--*TCM*.

The examples provided for descriptive feature (E), showed an informant's frustration with how quickly fitness practitioners impose on a person who they consider to be "different" (e.g., having a visible mobility limitation) a whole new set of rules and standards, based upon their decision of whether or not that person's assumed abilities or limitations warrant an opportunity to participate within a given activity context or environment.

"I've had many experiences. I have been treated as a second-class citizen and I have also been treated like anybody else would be. After my accident I tried to get into . . . actually I belonged to a fitness facility in the region and at that time I didn't have a leg, I was in a wheelchair, but I wanted to continue on at that facility after I got home from the hospital, but they didn't like the image of the wheelchair at that particular fitness

facility. I've also gone to that same fitness facility in the region and asked if I could play tennis there in a wheelchair, and they came up with every excuse, this was almost 10 years after my accident. . . they said, ' we can't help you, we can't coach you', and I kept saying, 'I just want to play tennis, it is exactly the same game except I have two bounces.' They said, 'oh the wheelchair is going to mark the floors; we don't have anybody that can help you here, this isn't the place for you', it just went on and on. Finally the lady just walked away from me, she just left me sitting there in the room, total rudeness. So I have often felt like going there and playing anyway, not telling them I'm in a chair and giving them a chair and see what happens. Their attitude has not changed since 1984-85"--LHF.

"The attitudes is the big thing. Someone actually refused me to race my wheelchair in a road race. They (organizers of the event) said at the starting line, 'you can't do this race'. I said, 'why can't I do this race?' I said, 'I don't want the money, I don't want a prize I just want to participate that's all I want to do, I want to be with all these other people and just participate.' They said, 'the roads are too bumpy.' I said, 'well if the roads are so bumpy these runners shouldn't be doing it because they will hurt their ankles and they are going to fall.' They made one excuse after another. So finally someone said 'I'll time you', and I went out and did the race, and the guy is screaming at the end, 'you can't go through that chute, she can't go through that chute', and I should have gone through it anyway, but I didn't, I just got my time, but it was the principle of the matter. I thought, where were these bumpy roads, sure there were a few bumps but it was nothing. I don't know what his problem was, because I tried to say I just want to participate and that's all"--LHF.

### **Adaptations, Modifications and Refinement: A Journey Towards Change**

This thematic statement can be characterized by the following descriptive features:

(A) consideration for and lack of adaptations: issues related to cost and feasibility;

(B) laws and regulations: accessibility processes that need attention; and

(C) informant(s) acknowledges his or her need for modifications.

The examples chosen for descriptive feature (A), indicated that knowledge about, availability of, and costs of adaptations are pressing issues for both the fitness industry and PMC in making equitable decisions about choices and opportunities for PMC to participate within various fitness settings.

"I personally don't think it will ever happen unless you get insiders in there. Even then people will say this is too expensive. Anything that deals with having to adapt becomes a money issue"--*DQF*.

"Have some adapted equipment, for instance a para-gym, an arm-bike, some equipment that was specifically geared towards someone with special needs. . . . A lot of the fitness facilities, speaking for city X, the fitness facilities don't feel it is worth their while financially to adapt or make adaptations for accessibility because they do not feel there are enough numbers of people out there with disabilities that would make it financially worthwhile for them to sink money into it. An example is the X Clubs. We spoke to the owner of seven clubs here in X and one of our requests was to put a railing into the pool for two brain-injured clients and we were basically told flat out that they did

not want to spend the money for that because the numbers of people were not worth their while. . . . Finances are a big issue for the disabled. So if you make money or have some assistance you are much more able to access some aspect of fitness in the community. I work out with a personal trainer twice a week , not everybody would be able to afford a personal trainer twice a week"--*CFF*.

"Yes barriers do exist, even in modern facilities that have been built within the last 2 years. Besides using the equipment they don't have the adapted equipment that is necessary... So I think equipment is a big issue because even with myself there are a lot of things I'd like to try but I can't because personally in a fitness facility I cannot afford to be putting out \$3,000 for a piece of equipment and that creates a lot of issues as well. For example, I cannot use a bicycle even with my amputation because my knee does not bend and my muscles in my legs are not good enough to do that, therefore it would be really great to have one of those hand cycles, but they are over \$1,600, so the big issue here is the cost."--*LHF*.

" The biggest problem I think is not considering adaptations. . . . I think right now we have to spend more money and spend more time in our programs for people with disabilities. I think there is a lot of resistance to adaptation in planning because it is going to take more work. With that attitude I don't ever think there will be a barrier-free environment"--*TCM*.

In the examples used for descriptive feature (B), the informants stressed that informing the public about accessibility laws and regulations for PMC was important, and that making sure existing legislation was being sufficiently upheld by the fitness industry

could make a difference in helping in the process of establishing barrier-free fitness environments.

“I know that a number of people with disabilities are working on an Ontarians with disabilities act, similar to the ADA in the states where accessibility is going to be or the hope that accessibility would be legislated. The ADA (Americans with Disabilities Act), based on their laws and regulations, every public building has to be accessible for people with disabilities, has to be accessible for everybody by the year of 1998 or 1999. The two years I lived down in the United States you could really see that changing and making a difference. We are so far behind. We don’t have an Ontarians with Disabilities Act yet but it is being worked on. So I think in order to overcome some of these barriers it’s a matter of educating the able-bodied community, and it’s about organizing the disabled community to really advocate for themselves, but in a positive way.”--*CFF*.

"You can pass laws and people will reluctantly do the minimum that is required of them legally. As long as that is happening you can have physical access, but lots of other kinds of barriers. Even though it is physically accessible, there are social structures in place to keep people out, then it will never be barrier-free"--*TCM*.

In examples used for descriptive feature (C), the informants indicated that many fitness facilities were not equipped with the proper adaptive equipment or modifications to existing weight training equipment that they needed to be able to fully participate and make safe exercise choices.

"For instance I'll give an example. At one facility in X with the weights you have to be able to use your legs to be able to push down so that you can use your arms on this

Cybex weight machine. A lot of people that have ability difficulties, especially in their legs, can't push down to be able to move their arms; and there is not always someone available to help out"--*LHF*.

"If we are doing any kind of flexibility exercises I have to drastically modify what I do. Last week I went to a fundamentals of movement workshop where we were trying all these different things. I was trying to do all the movements that we were doing, but very aware of restrictions that I might have. Some I don't know, and so I did things that I thought I could do and before the day was over my neck went into spasm and I couldn't do very much for a week. I get stuck thinking, I want to be a participant in this activity, but I don't know what might trigger a spasm. So that's a problem. I have never been in an activity-based environment where there have been any adaptations even talked about. I need adaptations. I am very fragile, and in a lot of ways not very flexible"--*TCM*.

### **Making a Case for Inclusion: Ask the Experts**

This thematic statement can be characterized by the following descriptive features:

(A) PMC have instinctive, natural, expert 'insider' knowledge: know what works, know what does not work, know what needs to be in place; and

(B) need for, and lack of adapted fitness specialists and training programs;

The examples provided for descriptive feature (A), indicated how PMC could greatly contribute and benefit the fitness industry in both barrier-free programming and

design because of their first-hand knowledge and insights they bring to the fitness-barrier experience.

(A) “There needs to be people in the industry that have disabilities themselves because they can bring a tremendous wealth of knowledge that other people just don’t have. . . . They are going to know quite instinctively what works and what does not work; and if they also have the background in movement education and know the principles of what a least restrictive environment should be, then that’s even better”--*DQF*.

“I think people who work in the field, whether they are adapted fitness instructors or physiotherapists who work with people with mobility limitations, whoever it may be, who are knowledgeable, they need to get out and educate the community. Whether it is going into the gyms and having inservices with staff, letting them know the numbers and demographics and the needs of people with mobility limitations, give them a general rundown of what is needed to make a club accessible without having to completely do an overhaul and completely buy all new equipment”--*CFF*.

“I think there should be someone working, like a community resource person with experience with special needs. Somebody who has a list of people to call that are willing to come in as volunteers or paid to go along and be a peer maybe initially to get the person comfortable with the program, and then you can wean out because a lot of these people have been isolated and they haven’t been out in community programs. It creates for a lot of people a sense of self-esteem initially if they choose”--*LHF*.

“People with disabilities helping to design the programs. The stories I’ve heard about adapted environments is that you have people who don’t have disabilities making

these adaptations. You have buildings which are theoretically accessible, but you can't get a wheelchair into the bathrooms, you can't turn around. I think people with different kinds of disabilities need to be included in the planning stages and walking through a proposed design and saying how would this work, or pointing out that, 'this doesn't work, I can't turn around, or I can't get in, or it's too hard to get in'. I think people who don't have mobility impairments can think real hard about what it's like, but unless they work with disabilities, or have one themselves it is impossible to think about all the adaptations that might be needed."--*TCM*.

The examples used for descriptive feature (B), indicated that there is a growing need for proper training programs in adapted fitness within the fitness industry and consequently a lack of fitness practitioners specifically trained in adapted fitness. Informants expressed that specialists need to be present within fitness environments to both attract and make the setting more barrier-free for PMC clientele.

"I think you need to look at how people are being trained in the field and reconfigure some things to allow PMC to play an active role. Someone like me consulting on making things barrier free. It's not going to happen overnight so you need someone there who is in effect the expert (insider). . . They need to embrace that and take people in that know that, and change will happen. We want the same opportunities as everyone else and not have to fight our way through this endless jungle of crap. If we embrace professionals who know how to make those adaptations, then that's going to be more welcoming to consumers."--*DQF*.



"Barrier-free programming. Try to get fitness instructors who are regular fitness instructors trained in a specialty of adapted fitness. . . . In opening a new fitness facility, a person would have to educate themselves about what is needed. So they would have to contact the proper professionals, and they would also have to when it comes time to designing the place they would have to talk to architects, or builders, or contractors who were familiar with barrier-free design. To be really good they could seek out people who are specifically trained in adapted fitness. Basically there are none in Canada to my knowledge, at least no training programs yet, possibly B.C."--*CFF*.

### **Designing for Today and Tomorrow: Accessibility for All**

This thematic statement can be characterized by the following descriptive features:

- (A) room to manoeuver: properly spaced equipment and free weights set-up;
- (B) physical accessibility - ramps, lockers, showers and bathrooms; and
- (C) things like noise, music and lighting can be overlooked.

The examples provided for descriptive feature (A), characterized the problems PMC could encounter because of the internal design within fitness facilities. Namely, small spaces in and around equipment, as well as unorganized and unmaintained free weights/dumbbells could compromise their safety and limit their choice and access to the full range of equipment provided within such fitness settings.

"For me having the space, and even in my house I have an incredible amount of space around everything which prevents me from falling. If I didn't have to bend down

so low to pick up a barbell or whatever then it wouldn't impact my balance as much so I probably would be able to do it."--*DQF*.

I need space to move around, and the attitudes with other people bumping into me, that's really troubling. . . . Also the way the weights are set up. We have a small space here and if the weights are thrown all around and I have to pick up weights and then step over things, that's really troubling because then you torque, and with my back that is dangerous for me to do that.--*TCM*.

The examples given for descriptive feature (B), suggested that despite current laws and regulations on accessibility issues, physical accessibility still remains a problem for PMC trying to gain access into and around many of today's existing fitness facilities.

"It would be a place where I could get into, actually physically accessible to me. One that had bathroom facilities and perhaps even shower facilities that I could use. Equipment spaced properly so that I could get to all the equipment that I wanted to. . . otherwise no stairs or if there are stairs, ramps to all areas. So basically a place that I could get into, that I could get to all the equipment that I want to, and if it is upstairs there is a ramp to get there, and bathroom facilities definitely."--*CFF*.

"Obviously we have to be able to get into the building, and have to be able to use the showers and the lockers, and the equipment too; but those things with a few dollars and some thought can be dealt with"--*LHF*.

"I play a lot of tennis so if I were in a wheelchair I would need access to the courts. . . . If there is six to eight stairs to get to the courts it would be a problem"--*TCM*.

In the example provided for descriptive feature (C), one informant talked about

how poor weight room etiquette (creating a loud disturbing environment) by other participants could profoundly effect the quality and safety of his workout. The informant also pointed out that the type or intensity of lighting in a fitness setting could be bothersome and unhealthy, and is often overlooked as a barrier to participation.

"People take for granted a body that is stable and healthy, no problems with noise. Noise would be a big thing, that would be a social barrier. One of the things I hate the most in the training room is people yelling back and forth to each other. When I first started doing Nautilus equipment I was in a room, there would be women that would be on either side of the room and I would be in the middle on one of the machines and they would be yelling back and forth to each other having a conversation, and then in the background there is music cranked up. So that would be another thing. I hate to go work out when someone has the music cranked up. I would like to be able to think about what I am doing, think about my body rather than thinking, 'I hate this music'. If it is turned up too loud it actually hurts. I guess another thing would be lights too. If the lights are too bright then that's going to bother me. With the disease I have, it makes me photo-sensitive. With a certain kind of light, or there is something going on in the background that is troubling to me. So the lights and the noise are problems"--TCM.

### **Lending a Helping Hand: The Difference Friends/Peers Make**

This thematic statement can be characterized by the following descriptive features:

(A) ongoing, consistent, reliable support and assistance;

- (B) awareness between and benefits of workout partners; and
- (C) creating a positive atmosphere for PMC.

In the example used for descriptive feature (A), one informant expressed the need and importance of having support people to work with on a one-to-one basis, or to supervise, which allows her to feel safe and make choices about the kinds of activities and exercises she would want to do or perform.

"It is a facility that has the proper supports in place, there is always somebody there to assist you. That is their main role, to assist you while you are there on the equipment or whatever. If I was to look at X's, I mean it's pretty bad, there are things there that I cannot always judge between, I'm always kind of afraid. . . having that ongoing support is really important for getting on and off machines. I like to work out and I would work out every day if I could, but I can't do it by myself. I can't pick up the equipment by myself and put it down and still be safe. I need assistance with putting on the weights and getting the form right"--*DQF*.

The example provided for descriptive feature (B), indicated that having someone like a friend or peer to work out with, can challenge, motivate, and make the training environment more comfortable and inviting for PMC.

"What has really worked is me pairing up with someone. Just going with a friend to a facility and working with them. I can do my own workout but they have to help me and have to be there, and there is quite a bit of awareness that goes on that I can't see with other people in the room, because first of all most people with mobility challenges don't

enter into a fitness facility that often, unless they are highly sports minded or motivated.”-  
-DQF.

The example provided for descriptive feature (C), showed the importance of fitness clubs making the effort to help accommodate for PMC, which in turn could provide PMC with a sense of accomplishment, acceptance, and support within a fitness environment.

“There has been certain facilities, like they are there to take you around. They always don’t get you a support person which I don’t personally need, but some people do, but they try to connect you. For instance, the one place they just called me and asked me, do you know of a support person because we have an individual with this and this. They are actually trying to get some support people who would volunteer to work with people that need the help. One facility allowed me to have my rollers there which I use with my wheelchair in the winter and in rainy weather. I leave my rollers there and I bring my wheelchair there and do my indoor workout there right beside the bicycles which is great because it’s pretty isolating I find; a lot of my activities are very isolating and I don’t feel I’m really integrated, it just seems you can do what they are doing by yourself. So this way I am right beside the bikes so they are pedalling and I am pushing hard. That way they are supporting me well. They have more positive attitudes and they check to make sure you’re OK and doing it right.”--LHF.

### **Fitness Industry Awareness Protocol**

The Fitness Industry Awareness Protocol (Appendix G) was created from the content and thematic analysis of the data. The rich information and interpretive meanings that evolved from the analysis were used to create 25 key statements divided into seven areas relating to the barrier issues which evolved from the data from the PMC informants. The protocol was given to four CPTN assessors/trainers to respond to, and was used to obtain further information about the awareness and existence of barriers within the fitness industry for PMC. Specifically, the protocol was created for the purpose of providing a snapshot of fitness practitioners' readiness to work with disability. A summary of the comments made on the protocol by the CPTN assessors/trainers and the results of the CPTN trainers "doing" the protocols will follow in this section.

The numerical responses given by the CPTN assessors/trainers, to the statements within the protocol provided strong supportive evidence in regard to the identification and acknowledgement of barriers which affect the participation of PMC. In response to the statements regarding the involvement of PMC within the fitness industry, CPTN trainers agreed that the fitness industry is not doing enough and needs to do more in providing opportunities for PMC to become involved in areas or positions such as employment, informational workshop leaders, sensitivity training, program planning, and volunteer work. Specific responses by CPTN trainers to the following statements found in the protocol were strongly agreed upon:

In the fitness profession, regular and specific empathy and information workshops need to be provided for staff/administration around the issues of physical disability/mobility impairments; and

The presence of PMC within the fitness industry can bring a tremendous wealth of knowledge about the do's and don'ts in fitness activities for PMC, that other able-bodied staff members cannot provide.

Findings related to the responses given by CPTN trainers in regard to knowledge, education, and training of fitness staff, as well as stereotypes and assumptions about PMC, indicated that most of the job-related, training, knowledge and understanding fitness staff receive often pertains to learning and understanding about the wants and needs of able-bodied individuals rather than people with disabilities. CPTN trainers also indicated that labels are still being given to PMC in regard to their individual abilities to perform and pursue fitness activities. As well, CPTN trainers strongly agreed that people assume or take for granted a "normal" healthy body, and can be caught up thinking in those terms and forget what it might mean to live with or acquire a disability.

In response to statements within the protocol regarding resistance to adaptations within the fitness industry for PMC, CPTN trainers indicated that the dilemma the fitness industry is faced with when making or considering adaptations is cost. One CPTN trainer in particular suggested that in many cases that knowledge is present but the funds to accommodate special populations is lacking.

In regard to the responses made to the protocol statements concerning accessibility, space, and organization within fitness environments, findings indicated that

the CPTN trainers considered physical accessibility to be an area where problematic issues still remain for PMC wanting to pursue their fitness needs. For example, CPTN trainers strongly agreed with the following protocol statement:

People living with mobility impairments are discouraged from participating/working out at certain fitness clubs because of the lack of accessibility and availability of adapted equipment and fitness programs within the fitness environment.

In response to the protocol statements regarding support systems within the fitness industry, CPTN trainers agreed that having a supportive structure (friendly staff, peer helpers, workout partners, adaptive fitness programmers) in place is important for attracting PMC to a particular fitness environment, and allowing them to continue long-term active participation.

Responses to the protocol statements concerning least-restrictive environments, and safety within a fitness facility indicated that neither of these two aspects were in proper working order within the fitness facilities where each of the CPTN trainers/assessors were employed. Most CPTN trainers did not consider their fitness facility to be a least-restrictive environment, or a totally safe environment for everyone.

In summary, the findings from the protocol indicated that the CPTN assessors/trainers agreed that problems exist and need to be addressed in areas such as attitudes towards people with special needs, properly prepared fitness staff, physical accessibility, support services, the general involvement of PMC within the fitness industry, and providing a safe and inviting fitness environment. These findings showed valid connections between the responses made by the CPTN assessors/trainers about



prevalent barrier issues and what was indicated in the insights, stories and experiences told by the 4 PMC informants. Overall, these findings suggest that, within the fitness industry, both the fitness environment and the people that work therein need to be better prepared to accommodate and work with people with disabilities, such as PMC.

## **CHAPTER FIVE: SUMMARY, DISCUSSION, AND IMPLICATIONS**

### **Summary**

The chapter intends to discuss, interpret, and summarize the findings of this study and provide suggestions for implications and practical application of the research. Since Chapter Four contains an extensive description of the data for each of the informants, the focus of this chapter will be on the general findings from the thematic statements and fitness protocol, and implications which emerged from this research.

### **Interpretation and Implications of Informant Meanings**

The main purpose of this study was to acknowledge, examine, and describe the barriers to participation within the fitness industry that exist for people living with mobility challenges. This study responded to a need for the fitness industry to be provided with the proper avenues and experiences that give fitness administrators, practitioners, and employees a realistic picture of the opportunities and challenges that exist and lie ahead for establishing barrier-free fitness environments for PMC.

How might the fitness industry be compelled to improve as a service profession by experiences with barriers to participation as discovered and described by the informants in this study? Educators, particularly those situated within the fitness field, can begin by taking seriously what these 4 informants learned and lived in their experiences with barriers, namely that barriers within the fitness industry can manifest themselves in various forms, places, and levels of severity, and are on many occasions characterized by a marginalizing focus on “disability” rather than individual ability.

Five major thematic statements emerged from the analyzed data taken from the rich personal accounts given and described by the informants in this study:

- (a) Living in a world that knows little "difference";
- (b) Adaptations, modifications and refinement: a journey towards change;
- (c) Making a case for inclusion: ask the experts;
- (d) Designing for today and tomorrow: accessibility for all; and
- (e) Lending a helping hand: the difference friends/peers make.

A comprehensive interpretation of the significance and potential impact these findings bring to bare on the barrier issues surrounding PMC within the fitness industry will be discussed in this section.

In interpreting the meanings of the features found within the thematic statement, **Living in a world that knows little “difference”**, analysis indicated that attitude and willingness may be the first critical ingredients for dismantling participation barriers. As suggested by the informants of this study, the behaviors, intentions, and subsequent actions and treatment of PMC by members of the fitness industry could be related to the deep-rooted (actual or perceived) beliefs, feelings, and attitude held toward PMC. Numerous studies (e.g., Melograno & Loovis, 1991; Rizzo & Wright, 1988; Tripp & Sherrill, 1991) have shown that attitude had a direct impact on teaching/instructing people with disabilities. Research of this nature suggested that such things as communication, preparedness, direct experience and exposure, and training and education about people with disabilities were determining factors in issues involving the social acceptance, understanding, inclusion, and/or formation of meaningful working

relationships between physical educators or practitioners and people with disabilities (Block, 1995; Goodwin, 1987; Hart & Williams, 1995; Rizzo & Vispoel, 1991, 1992).

It is interesting to note that the contributing factors mentioned above were consistent with what the informants of this study identified as being characteristic of common practice within the fitness industry today. Results clearly indicated that being “different” made a significant difference in the manner in which members of the fitness industry treated the informants within particular fitness settings. Concerns were raised as to the ability of fitness practitioners to deal with and see past the apparent differences of their PMC clientele or participants.

It would seem that the fitness industry has long become accustomed to doing things a certain way, and as a result have had the tendency of looking past that which is different. For example, fitness staff have become very comfortable working with what and who they know within their own domains. When that changes, and a person with a mobility impairment arrives at the fitness club ready to participate, a fitness practitioner is often not equipped with the proper educative qualifications and direct interactive experience to be able to effectively and competently fulfil the wants and needs of that PMC. As a result, both parties feel awkward and become frustrated with one another, and negative attitudes develop out of the situation, which consequently carry over to and compound similar situations. This scenario represented what was found to be true in many of the informants’ experiences. As a result of these type of experiences it was the informants who became expendable and were left feeling disempowered and marginalized.

Giving fitness practitioners more opportunities to work and interact with PMC would allow for a greater understanding of what *is* possible within certain physical limitations. With these insights, the fitness industry can grow professionally by developing a healthier outlook towards accepting and including PMC. The inclusion of PMC, initially perhaps a challenge, could prompt the fitness industry toward creativity, versatility and adaptability in program content, protocol, policy, process, assessment and evaluation.

In discussing the meanings found within the thematic statement, **Adaptations, modifications and refinement: a journey towards change**, analysis indicated that informants considered the need, availability, and proper allocation of resources to be important priorities for establishing equal opportunities for PMC to engage in physical activity within fitness environments. Main concerns were raised about the costs of purchasing, availability, and uses for adapted/modified fitness equipment. These results, consistent with past research (Locke, 1992), suggest that, without the proper resources and the financial means and know-how to obtain them, the change process in relation to creating barrier-free fitness environments becomes increasingly difficult.

A second important finding was that informants indicated that the fitness industry did not recognize PMC as interested fitness consumers. The fitness industry was reluctant to spend their time and money on making modifications for the seemingly low number of PMC clientele that use fitness facilities to work out. Previous research (Seidler, Turner, & Horine, 1993) suggested that with the majority of the clientele consisting of able-bodied persons, most energy is spent on changing and enhancing

programs and equipment to suit the needs of able-bodied clientele. Much of the equipment found within fitness facilities is of limited use to PMC because modifications are not in place to allow them to use it. Therefore, as shown in the findings, many PMC are not attracted to fitness facilities that do not provide adapted equipment or modifications to existing equipment, and as a result the fitness industry associates a low number of PMC participants with their disinterest in pursuing physical fitness.

Also suggested in the findings was the fact that, because of the current lack of Canadian legislation in support of people with disabilities, the fitness industry to an extent is not bound or pressured legally to provide equal service and distribution of resources for PMC. Results suggested that in these matters the fitness industry did only the minimum that is required of them legally. Much of the time, PMC are left to continue to advocate for themselves around these barrier issues.

Taken collectively, if these interpretations are accurate, then the present findings support a call for providing information and suggestions via guidelines and manuals (e.g., Hardin, 1995; Lasko-McCarthy & Aufsesser, 1990; Paciorek & Jones, 1989) about the availability, types, costs, and uses for adapted or modified equipment resources for the fitness industry. Furthermore, information about resources for PMC can be infused throughout professional literature, pamphlets, and fitness protocol and programs within the fitness industry and preservice programs for physical education professionals who want to pursue fitness as a career. Promoting and publicizing the countless possibilities for resources for PMC throughout fitness protocol and programs may encourage and

influence the fitness industry and increase the probability of creating fitness environments rich in cost-effective resources and adaptations that suit all needs and abilities.

Within the thematic statement, **Making a case for inclusion: ask the experts**, findings indicated a growing need for adapted fitness specialists within the fitness industry, namely PMC with expertise in the fitness field, and educators/practitioners trained, competent, and specialized in adapted physical activity. The findings are consistent with Goodwin's (1987) viewpoint that the "specialist" has a very important and dynamic role. As mentioned throughout the results, adapted fitness specialists can assume various roles (not exclusive of each other) within our fitness facilities. The adapted fitness specialist can act as a consultant, mentor/advocate, and direct service provider for clientele who request, require, and depend on those services.

As suggested by the informants of this study, adapted fitness specialists, particularly PMC, are information experts. Fitness specialists who live with some type of impairment themselves hold instinctive expert knowledge about the wants and needs of clientele who have special needs. Because PMC fitness specialists come from and can relate to similar backgrounds and experiences as their clientele with disabilities, they are able to directly assess the abilities and limitations of their clients and provide and prescribe the appropriate instructional programming for these individuals. Also noted in the present findings and supported in previous studies (Goodwin, 1987; Seidler, Turner & Horine, 1993), adapted fitness specialists should and need to be included within the fitness industry to provide authority, advice, and service in a variety of different capacities, such as planning, designing and constructing barrier-free fitness facilities,

creating and developing adaptations and modifications to equipment and programs, educating the community about people with special needs, training fitness staff in adapted physical activity through inservicing, information sessions, workshops and conferences, and advocating, attracting, supporting, and being a role model for staff, clientele, and members of the community.

If the fitness industry were to give serious thought to the positive impact adapted fitness specialists could have in terms of the benefits and contributions they bring in providing a springboard for enabling PMC to participate, it might compel them to expand their efforts and commitment to ensure that these services are provided. The fitness industry could begin by putting pressure on the Canadian government to design and implement much needed training programs in adapted physical activity, and support university and college programs that have adapted physical activity streams or courses, as well as graduate-level and community-based training programs. As part of company policy, employees could be required to have some experience working with people with special needs. Furthermore, the fitness industry must recognize and include PMC who have particular interests and expertise in physical fitness because they provide a vital gateway through which other PMC can access and pursue their fitness needs.

In interpreting the meanings of the descriptive features that characterized the thematic statement, **Designing for today and tomorrow: accessibility for all**, analysis indicated that the informants of the study considered the *internal* design and environment within fitness facilities to be elements that could be overlooked and consequently jeopardize individual safety and accessibility to participate. Concerns were raised about



physical access in, through, and around certain fitness environments, in particular the use of bathroom and shower facilities, as well as stairs. In accordance with previous research (ACTION, 1992; Bullock & Mahon, 1995; Hamel, 1992) recreational facilities that have stairs without adjoining ramps or elevators or have bathrooms and showers that are so small that a wheelchair could not get in or out without great difficulty pose many problems for PMC. Despite the improvements made in the past decade, many fitness facilities are still faced with accessibility issues because of where they are located within their designated communities. Fitness facilities located in the downtown core of some communities are often two-storey, older buildings with sections of the facility built on the top floor or in the basement, which requires the use of stairs and movement through smaller spaces. Without much room to expand or make renovations, it is often not possible or economically feasible to make big changes (e.g., install ramps or elevators, expand the top floor) to a facility. As a result, accessing such fitness facilities becomes increasingly difficult for some PMC.

Another important finding was that the placement and spacing of weight room and other fitness equipment was identified by informants as being a potential safety risk within a fitness facility. At times, living with a mobility limitation does not allow a person to manoeuvre or balance properly to get in and around certain equipment (e.g., free-weights, machines). Therefore, when, for example, a weight room is designed or set up poorly (little space between equipment, machines and free-weights placed in awkward positions and levels, free-weights scattered on the floor) it may require or place PMC in

positions that may compromise their safety by making them bend or reach, or the other alternative which is not being able to access the equipment at all.

One other interesting finding was the fact that even such things as the noise level (e.g., loud conversations, music playing) and certain kinds or intensity of lighting within a fitness facility can be bothersome or have potentially harmful effects in terms of one's performance and ability to cope. The fitness industry needs to be aware that even the noise level and lights, aspects that seem less significant and can go even more unnoticed than perhaps inaccessible bathrooms or weight room equipment, take care and thoughtful planning and maintenance.

In light of the impact these findings have on the opportunities for PMC to actively participate, there is the potential for the fitness industry to make a conscious effort to ensure that fitness facilities are as accessible inside as they are outside. Adopting a barrier-free philosophy in regard to facility design could lead to greater community involvement and awareness of accessibility issues through the hiring of architects and building contractors familiar with barrier-free design, as well as adhering to the advice of PMC who can assist in making decisions about feasible remodelling or design of new, physically accessible fitness facilities.

The last major finding of this study, as presented in the thematic statement, **Lending a helping hand: the difference friends/peers make**, indicated that peer support can have a positive effect on the opportunities and motivation for PMC to participate in fitness activities of their choice. Prior research (Levinson & Reid, 1991) supports the present findings by implying that a lack of friends with common interests

and abilities with whom to participate can become a common barrier for PMC pursuing recreational fitness.

If one were to observe people participating in activities within a fitness club, most often you would find that people are partnered up with friends or a small group of peers. Whether it be to play squash or basketball, to spot and assist each other with weights and equipment, to motivate and challenge each other, or to simply have someone to talk and share with, there are many needs and reasons why having people to participate with is important. Like their able-bodied counterparts, the need and desire for support and companionship is no different for PMC. For PMC, having ongoing support from peers with similar abilities, interests, or goals can mean the difference between continued participation and motivation to try new things, and being totally discouraged or unable to participate.

The fitness industry, through their acknowledgement and recognition of the continuing need for a strong contingency of support services for PMC, can improve public awareness of the social benefits and fitness opportunities provided within such services. Developing and implementing fitness programs and physical activities which promote the social gathering of PMC with other PMC (e.g., quad rugby, wheelchair basketball), or the progressive integration of PMC with able-bodied people, may create a more open and positive social forum for attracting, maintaining and accepting participants with special needs.

The key issues that have been addressed here can be summarized in Labanowich's (1978) words: "The implication for practitioners, authors, and educators in the field of

recreation is that they must develop and practice a philosophy that points toward a realistic appreciation of the potential of physically disabled individuals for normalized participation in our society” (p.17). Would not the acknowledgement of barriers and the acceptance of a barrier-free philosophy within the fitness industry advocate a realistic appreciation of PMC participating and becoming more actively involved and included within any given fitness environment? Is not ignorance towards these real possibilities a stand against the acceptance and inclusion of PMC within fitness environments as an everyday occurrence? One must question the direction from which the fitness industry has come and the direction it is currently taking in terms of the treatment and opportunities they have and are providing for allowing PMC to actively participate in fitness activities/events of their choice, if, in fact, those choices and opportunities are not being provided. As such, without the acknowledgement that barriers to participation do exist within the fitness industry for PMC, and progressive action taken to breakdown these barriers, the promotion of a marginalized focus on “disability” will continue.

The fitness industry must continue to provide an avenue for participation, for without it, PMC and individuals with other physical disabilities may never have a full opportunity to participate in physical fitness activities, games, or sports at any level on a regular basis, with or without their peers. The acknowledgement, acceptance, and maintenance of barriers by the fitness industry should not be considered an onerous task. It should be considered to be an enhancement for the fitness industry, and treated, cared for, and dealt with as a process in progress.

### **Fitness Industry Awareness Protocol: Recommendations for Practical Application**

There are several ways a protocol, such as the Fitness Industry Awareness Protocol, could be made use of within the fitness industry and in other educational contexts. First and foremost, as it was used in this study, it can be used as a preservice and inservice tool for needs assessment of fitness practitioner's readiness to work with disability. The protocol could heighten awareness of the most prevalent barrier issues which face the fitness industry as a whole in providing for the needs of clientele with special needs, such as PMC. As well, the protocol can be used for identifying sites of intervention on the part of the fitness industry or individual fitness facilities with regard to prioritizing which barriers may need more attention than others and the immediacy with which they are taken care of. For example, beginning with larger issues, such as forming the right attitudes towards working with PMC, could at times indirectly dissolve some of the smaller barrier issues that may be present in one fitness facility or another.

Furthermore, a protocol of this type could be put into action within a fitness facility to be used as a competency checklist (Lasko-McCarthy & Aufsesser, 1990) for a number of different things. First, it could be used as an assessment or evaluative tool to screen applied skills, knowledge, and experience of fitness instructors and employees before assigning them to clientele with special needs. The checklist system could also be used to monitor the progress or work habits a fitness staff employee with a client. The protocol could also be used by employees, practitioners, or educators as a self-checklist to assess one's behavior and way of thinking about their own feelings, opinions, and

perceptions about working with someone with special needs, and what skills and knowledge they need or have already gained from such experiences (e.g., What worked well, what did not? Why/why not? What do I have to do or change, or what can I try or do differently next time?).

The protocol used in this checklist format could also be implemented to monitor how well a particular fitness facility is meeting the needs of clientele with special needs in regard to such things as equipment and program needs, support services, and physical accessibility.

Having a protocol like the Fitness Industry Awareness Protocol to use and work with could help guide the fitness industry into improving as a service industry by providing more successful and efficient opportunities for PMC to actively engage in physical activity within various fitness environments.

This fitness protocol could also have application to other environments, such as physical education settings within school-based or university-level programs . A protocol of this type could again be used as a preservice and inservice tool for providing a snapshot of teachers' and educators' readiness or preparedness to work with students with physical disabilities in a physical education environment. Problematic areas or barrier issues within school settings for students with physical disabilities could be identified and further acknowledged and understood through the content within, and use of, such a protocol. For example, such things as a lack of qualified or specialized teachers in adapted physical education or a lack of resources, or support services for students with

physical disabilities may be identified as issues which may need attention within such educational environments.

Overall, such a protocol as the Fitness Industry Awareness Protocol, could benefit schools and other educational institutions by providing awareness and suggestions for strengthening their contributions towards providing inclusive, inviting and accessible physical education environments and programs for students with physical disabilities.

### **Implications for Further Research**

Within the context of special populations and physical fitness, the implications for further research are not difficult to establish. If one recognizes and acknowledges that barriers to participation exist within the fitness industry for people living with mobility challenges or other physical disabilities, one also ought to recognize the importance of ongoing education and research into changes to how PMC are treated and serviced in the fitness industry. Like the informants in this study, individuals living with physical disabilities and leading practitioners in the fitness field ought to be encouraged and invited to take up the challenge and communicate their insights and life experiences of participating or working within fitness environments. Narrative inquiry does have a place within a fitness setting. The insights, stories, and experiences should be told and the voices from which they came be heard, acknowledged, and understood. Promoting growth through the process of narrative inquiry has a place within educational research.

Leaders in the field need to continue preparing educational material that addresses the issues facing the fitness industry in providing for the fitness needs of people living

with mobility challenges. Researchers have the ability to improve the education of the fitness industry and their relationship with people with disabilities through an increase in training and awareness programs and protocol and published research targeting these issues. As a result, fitness practitioners and special populations, such as PMC, may both be compelled to work together towards change by ensuring that existing barriers to participation are diminished or completely dismantled.



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## Appendix A

### Letter of Informed Consent

Kirk Wilson  
Brock University,  
St. Catharines, Ontario.

Dear \_\_\_\_\_,

My name is Kirk Wilson and I am a Masters of Education student at Brock University, Ontario, Canada. I am currently involved in academic research in the area of Special Populations and Fitness. My research interests focus on the identification and prevention of barriers to participation individuals living with mobility challenges experience within the fitness industry. I am writing to request your assistance in attaining information on this area of interest. I strongly believe that individuals living with mobility challenges should be supported by the fitness industry by ensuring that an equal opportunity to participate in barrier-free, activity-based fitness programs is a priority.

I am writing to request your participation and assistance via an interview as a key informant in attaining information on this area of interest. The interview will help me gain insight about the status of people living with mobility challenges within fitness-related environments. This letter has been sent to a select number of individuals living with mobility challenges either employed by, or consumer/participant of and within the fitness industry. The purpose of this interview is to identify the barriers to participation that exist for people with mobility challenges within various fitness environments, and to examine how these individuals are treated as a result of these barriers. This information will help me better understand and explain the relationship between the fitness industry and you the “insiders”. It will also help me provide recommendations and strategies for how to overcome barriers to participation for individuals living with mobility challenges in order to improve the relationship with the fitness industry.

The information gathered through this interview will be used for academic purposes only. Participation in this study is strictly voluntary, and all individuals will remain anonymous. You reserve the right to withdraw from the study at any time without penalty. All the raw data will remain private, and will only be seen and used by myself and my academic advisor. Any written record will be a summarized synthesis of the original work. If you have any questions regarding my study, please feel free to contact me or my academic advisor, Maureen Connolly, at Brock University at (905) 688-5550, ext. 3381. My e-mail address is kw95ah@badger.ac.brocku.ca  
Sincerely,

Kirk Wilson  
MEd Student,  
Brock University



## **Appendix B**

### Interview Research Questions

1. Can you give a definition or identify characteristics of a barrier-free fitness environment?
2. Do you think barriers to participation exist for PMC within the fitness industry? Can you identify the barriers or most prevalent problematic issues facing PMC within an activity-based fitness environment? Comment on yourself both as a participant and potential leader.
3. What has been your personal experience(s) as a consumer/participant in terms of how you've been treated by other members of the fitness community?
4. In your opinion what processes are in place that enable you to participate?
5. In your opinion what processes are in place which perpetuate your exclusion?
6. What is needed to encourage and/or improve the practice of barrier-free facility design and barrier-free programming within the fitness industry?
7. Can you see barrier-free environments becoming a reality within the fitness industry? What would be the contribution/challenges to such development?

## Appendix C

### Excerpt: DQF - Interview Session Transcription [DQF-25-51]

I: What has been your personal experience(s) as a consumer/ participant in terms of how you've been treated by other members of the fitness community?

D: Well I think that professionals in the industry give it a good lip service, oh yes we will work with you, but when it comes down to yes I want to participate, they just don't know how and their stress level goes way up, and its like you become this inconvenience for them because they can't get away from the baggage that they carry. Your standing right in front of them, and your not going away, but they would like you to. Part of them wants you to participate too, but they just don't know how to make that happen. I went to a facility and I was working out and he was showing my how the equipment works and we got down to the pull-down bar and there was something he wanted me to do. He wanted me to stand and pull it down. Well I just don't have the balance for that and I said to him that I could not do that, well why? Well because if I do do that I am going to fall on my rear end here. But just try it, and I went look buddy I can will it to happen, but it's not going to happen because this is my body and this is what I know. Don't insult my intelligence by saying to me if I work or try harder that it will happen. There needs to be some sensitivity behind that and there needs to be people in the industry that have disabilities themselves because they can bring a tremendous wealth of knowledge that other people just don't have.

I: In your opinion what processes are in place that enable you to participate?

D: What has really worked is me pairing up with someone. Just going with a friend to a facility and working with them. I can do my own workout but they have to help me and have to be there, and there is quite a bit of awareness that goes on that I can't see with other people in the room, because first of all most people with mobility challenges don't enter into a fitness facility that often, unless they are highly sports minded or motivated.

I: In your opinion what processes are in place which perpetuate your exclusion?

D: I have a big problem about people's attitudes towards persons with disabilities. Certainly that is improving, but it will never be as it should. or as we think it should, so I myself develop some fear around that. I'm getting the sense that I am in the way or that you are not equal and your such a bother. You can't help but have a power differential because some people are physically more vulnerable and need more assistance, and you can as the professional, and this is not ethically right, but you can decide to take it away from them or just decide no I cannot deal with this, no we cannot accommodate you.

**Appendix D**Excerpt: CFF - Interview Session Transcription [CFF-59-84]

I: Can you see barrier-free environments becoming a reality within the fitness industry? What would be the contributions/challenges to such development?

C: First of all I don't see it becoming a reality across the board for a long long time. I see it becoming a reality for some clubs, for instance the X. As far as they go for clubs in the city (London) they are the most accessible, but they still have a long way to go. I think it's just that they are not informed of what is needed exactly. I don't see it happening with the X's gym in London, or the X club because we are already well aware of their attitude.

With the X they are a combination profit, non-profit organization where they are funded by the United Way, but they also have competitive memberships. Also because they are funded by the United Way part of their mandate is to a degree to be accessible; and also their history where they are meeting the needs of the population at large instead of targeting a certain population in the community. To a degree gym's like X's are targeted at the hard-core body-builders. There is more recreational fitness people there than I thought before I started working there, but I think they really do target it at the body-builders and the "beautiful people". I don't necessarily think it's a conscious thing, I think it's partly a function of the clientele, certain clientele draws other clientele and I don't think it was designed specifically for that. But, with respect to the X's gym they are at least down twenty stairs, they are in the basement of a plaza, and everywhere you want to go in the gym is up a couple steps and down a couple steps, and they don't have any wheelchair accessible bathrooms. In order for the X's gym to become accessible it would cost so much money that it would probably not be worthwhile financially to do it.

In opening a new fitness facility, a person would have to educate themselves about what is needed. So they would have to contact the proper professionals, and they would also have to when it comes time to designing the place they would have to talk to architects, or builders, or contractors who were familiar with barrier-free design. Too be really good they could seek out people who are specifically trained in adapted fitness. Basically there are none in Canada to my knowledge, at least no training programs yet, possibly B.C.

## Appendix E

### Excerpt: LHF - Interview Session Transcription [LHF-60-88]

L: The attitudes is the big thing. Someone actually refused me to race my wheelchair in a road race. They said at the starting line you can't do this race. I said why can't I do this race? I said I don't want the money, I don't want a prize I just want to participate that's all I want to do, I want to be with all these other people and just participate. And they said the roads are too bumpy. I said well if the roads are so bumpy these runners shouldn't be doing it because they will hurt their ankles and they are going to fall. They made one excuse after another. So finally someone said I'll time you, and I went out and did the race, and the guy is screaming at the end, "you can't go through that shoot, she can't go through that shoot", and I should have gone through it anyway, but I didn't I just got my time, but it was the principle of the matter. I thought, where were these bumpy roads, sure there were a few bumps but it was nothing. I don't know what his problem was, because I tried to say I just want to participate and that's all. Attitudes have come a long ways, but sometimes you feel that your sort of an add on, but I don't think still yet that we are included, like inclusion I think it is always an afterthought. Its a long process. My skiing experiences have been positive, but again at some places they hadn't even seen a sit-ski before and there is national competitions their every year. But then alpine skiing too there is a lot of places where we still can't go because people don't know enough about the mono-ski and they get nervous about it. So sometimes its just a lack of knowledge for those people, not a stereotype that you can't do this, education is in their too.

I: What is needed to encourage and /or improve the practice of barrier-free facility design and barrier-free programming within the fitness industry?

L: The way people are educated is important. I think it is too general, when you tell them about amputations for example, its fine to know about amputees, but we are all so different and that's the problem. You say amputees are like this, well they're not. That's what scares me about when you start breaking it down into this disability and that disability. Sometimes I think certain concepts or philosophies... the thing with disability is that they are individuals. I think people need to examine their own attitudes. Sometimes people who have been to school or work and have been educated think that they're ok, and when you come down to a situation you're not really, you have decision making, so I think education is important.

## Appendix F

### Excerpt: TCM - Interview Session Transcription [TCM-I-27]

I: Can you give a definition or identify characteristics of a barrier-free fitness environment?

T: I play a lot of tennis so if I were in a wheelchair I would need access to the courts. If there is six to eight stairs to get to the courts it would be a problem. Just relating it to the classroom. I've done a lot of sitting in classes and I've found that moving around is often interpreted as disruptive; so with moving around I've had lots of labels like "asshole" or other disruptive labels because I have to move and I only move five percent of the time because of the perception, the way I think others will perceive. I need space to move around; and the attitudes with other people bumping into me that's really troubling. People take for granted a body that is stable and healthy no problems with noise. Noise would be a big thing, that would be a social barrier. One of the things I hate the most in the training room is people yelling back and forth to each other. When I first started doing Nautilus equipment I was in a room there would be women that would be on either side of the room and I would be in the middle on one of the machines and they would be yelling back and forth to each other having a conversation, and then in the background there is music cranked up. So that would be another thing. I hate to go workout when someone has the music cranked up. I would like to be able to think about what I am doing, think about my body rather than thinking, "I hate this music". If it is turned up to loud it actually hurts. I guess another thing would be lights too. If the lights are too bright then that's going to bother me. With the disease I have, it makes me photo-sensitive. With a certain kind of light, or there is something going on in the background that is troubling to me. So the lights and the noise are problems, and certainly room to maneuver. Now I don't use a wheelchair, but there are days when I think that could be a real possibility. Also the way the weights are set up. We have a small space here and if the weights are thrown all around and I have to pick up weights and then step over things that's really troubling because then you torque, and with my back that is dangerous for me to do that.

I: Do you think barriers to participation exist for PMC within the fitness industry? Can you identify the barriers or most prevalent problematic issues facing PMC within an activity-based fitness environment? Comment on yourself both as a participant and potential leader.

T: Well there is the assumption by the instructors and the physical environment that everybody's body is the same, and so everybody should be able to do certain activities. If we are doing any kind of flexibility exercises I have to drastically modify what I do.

## Appendix G

### Fitness Industry Awareness Protocol (Statement Response Questionnaire)

The following, are statements based on the current issues/barriers to participation that people living with mobility impairments and the fitness industry struggle with today, and that have become problematic to forming a strong and healthy working relationship between fitness clubs and those living with mobility impairments.

For the purposes of this study “PMC” will be used to represent “people living with mobility challenges” (e.g. wheelchair users, CP, MS, MD, arthritis, amputees...)

Each statement will be provided with, and is to be answered in the margin using a scale from 1 to 10, where 1 = strongly disagree, and 10 = strongly agree.

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#### **1. PMC are non-existent in the planning processes of the fitness industry (need PMC involvement).**

- i) As part of a fitness clubs hiring policy or protocol, employees are required to have some background or experience with adapted physical activity and working with people with physical disabilities.
- ii) The fitness industry has neglected to find better ways for PMC to become involved, in terms of membership, employment, volunteering, and/or administrative work.
- iii) In the fitness profession, regular and specific empathy and information workshops need to be provided for staff/administration around the issues of physical disability/mobility impairments.
- iv) The presence of PMC within the fitness industry can bring a tremendous wealth of knowledge about the dos and don'ts in fitness activities for PMC, that other able-bodied staff members cannot provide.

## **2. Lack of knowledge/education and proper training of fitness staff. Stereotypes and assumptions about PMC.**

- i) Fitness practitioners/staff are trained only with the knowledge on how to deal with, accommodate, train, and work with able-bodied individuals.
- ii) Due to a lack of experience with and education about PMC, fitness staff feel threatened, and are apprehensive and uncomfortable working with and programming for PMC; and are ignorant towards the wants and needs of these clients.
- iii) People have stereotypes and create labels for PMC, which in turn disempowers and further marginalizes PMC.
- iv) There is a general ignorance within the fitness industry that people don't understand that there are PMC who are interested fitness consumers wanting to pursue recreational fitness.
- v) There is an assumption by fitness instructors and the physical environment that everyone's body is the same, and so everyone should be able to do certain fitness activities, and do them the same way.
- vi) One common attitude people hold that directly affects the treatment of PMC is that anything less than the cultural idea of "normal" is bad.
- vii) People take their healthy bodies for granted and don't see the other side, the one of living with a physical disability/mobility impairment.

## **3. Resistance to adaptations related to cost, time, and effort (lack of adapted equipment).**

- i) Anything that involves having to adapt in a fitness facility (programs, equipment) boils down to a money issue.
- ii) One of the biggest problems in fitness clubs is considering activities adaptations/modifications, and using the proper time and effort required to fulfill these objectives.
- iii) Adaptations are not priorities in fitness facilities and are not considered feasible because there is the assumption that the majority of members have normal bodies, and in fitness activities people do things the same or a certain way, so why change things.